

COC# 152

11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244 East 11115 Montgomery, Suite B, Spokane, WA 99206-4776

> 9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711

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(503) 906-9200 (541) 383-9310 FAX 382-7588

FAX 906-9210

CHAIN OF CUSTODY REPORT

Work Order #:

CLIENT: Bristol		INVOICE TO:	Brishol		TURNA	AROUND REQ	UEST in Business I	Days*
REPORT TO: Anne Trana u ADDRESS: Am Chittia Islan	ue Hen						organic Analyses	
ADDRESS: Am Chitle Tilm	l Ah				10 7	5 4	3 2 1	< 1
	•				STD.		rocarbon Analyses	_
PROJECT NAME: Anchithia	FAX: 770-0975	P.O. NUMBER:	21090		5	4 3	2 1 < 1	
	1 1 1	1 1 1	TED ANALYSES		STD.		Please Specify	
PROJECT NUMBER: 21090	3 5 18					OTHER		_
SAMPLED BY: (Km / DJV,	DUCO / RUCO / Metals / Metals				*Turnarou	nd Requests less than	standard may incur Rush C	harges.
CLIENT SAMPLE / SAMPI	LING Q FEE 3				MATRIX	# OF		N. NO
IDENTIFICATION DATE/	DINCO / RVCO Metals GNO / BTEX				(W, S, O)	CONT.	COMMENTS	ID
1. OLAM F9 VOISL 7/5/01	XXX							
2. DIAN FQUOZSL 7/5/01	XXX							
3. OIAM FQUO3SL 7/5/01	XXX							
4.01AM F9U045L 7/5/01	XXX							
501AMF9U05SL 7/5/01	+ X X							
6.01AM F9U06SL 7/5/01	* X X							
701Am F9V07527/5/01		X						
8.								
9.								
10.								**************************************
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RELINQUISHED BY:	6.11	DATE: 7/5/31	RECEIVED BY: All PRINT NAME: RECEIVED BY: Rule	1/1/1				7/5/01
PRINT NAME: Charle Marshall	FIRM: Bristo	TIME: 1555	PRINT NAME:	Hepren WIPE	FIRM:	MCH		: 1555
RELINQUISHED BY: PRINT NAME:	FIRM:	DATE: TIME:		ul Arriola	FIRM:	1128		18:37
ADDITIONAL REMARKS:	I LIMIYI.	THYLL.	Marinani. Proces	al 111110/a	THAN.			18: 27
COC REV 3/99							TEMP: 5.1 PAGE	E OF



orth Creek Pkwy N, Suite 400, Bothell, WA 98011-8244 Seattle 425 200 fax 425.420.9210

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503.906.9200 fax 503.906.9210 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711 541.383.9310 fax 541.382.7588

31 July, 2001

Anne Krarawetter Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

RE: Amchitka

Enclosed are the results of analyses for samples received by the laboratory on 07/06/01 18:37. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jerry Orlando

Project Manager/QA

for Olanlo

Work Orders included in this report:

P1G0207



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Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

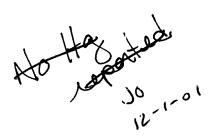
Project Number: 210901, PO# 21090

Project Manager: Anne Krarawetter

Reported: 07/31/01 12:38

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	74		
01AMF9U01SL		Matrix	Date Sampled	Date Received
	P1G0207-01	Soil	07/05/01 12:00	07/06/01 18:37
01AMF9U02SL	P1G0207-02	Soil	07/05/01 12:00	07/06/01 18:37
01AMF9U03SL	P1G0207-03	Soil	_	
01AMF9U04SL	P1G0207-04	Soil	07/05/01 12:00	07/06/01 18:37
01AMF9U05SL	P1G0207-05		07/05/01 12:00	07/06/01 18:37
01AMF9U06SL		Soil	07/05/01 12:00	07/06/01 18:37
	P1G0207-06	Soil	07/05/01 12:00	07/06/01 18:37
01AMF9U07SL	P1G0207-07	Other wet	07/05/01 12:00	07/06/01 18:37





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Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 12:38

Gasoline Range Organics (n-Hexane to <n-Decane) and BTEX per AK101 and EPA 8021B North Creek Analytical - Portland

Analyte	Result	Reporting Limit		Dilution	Method	Prepared	Analyzed	Batch	Note
01AMF9U01SL (P1G0207-01) Soil					Sampled: 07/0:				14016
Gasoline Range Organics	ND	2.32					ived: 07/06/	01	
Benzene	ND	0.0580	mg/kg dry	1	AK101/8021B	07/10/01	07/10/01	1071099	
Toluene	ND	0.0580	"	"	"	Ħ	Ħ	n	
Ethylbenzene	ND	0.0580	n	"	n	n	**	Ħ	
Xylenes (total)	ND	0.0580	"	"	11	"	11	n	
Surr: a,a,a-TFT (FID)	105 %	60-140				- "	11		
Surr: a,a,a-TFT (PID)	88.7 %	60-140							
01AMF9U02SL (P1G0207-02) Soil					C1 1 05/04		-		
Gasoline Range Organics	ND	2.65			Sampled: 07/05		ved: 07/06/0	01	
Benzene	ND	2.65 0.0663	mg/kg dry	1	AK101/8021B	07/10/01	07/11/01	1071099	
Toluene	ND		"	11	"	11	"	n	
Ethylbenzene	ND	0.0663 0.0663	"	**	11	11	**	u	
Xylenes (total)	ND	0.0663	"	11	"	n H	n n	"	
Surr: a,a,a-TFT (FID)	112 %	60-140						"	
Surr: a,a,a-TFT (PID)	97.2 %	60-140							
01AMF9U03SL (P1G0207-03) Soil					0 1 1 0=40=				
Gasoline Range Organics	ND	1.00			Sampled: 07/05		ved: 07/06/0)1	 .
Benzene	ND	1.92	mg/kg dry	1	AK101/8021B	07/10/01	07/11/01	1071099	
Toluene	ND ND	0.0480	"	"	н	Ħ	н	Ħ	
Ethylbenzene	ND ND	0.0480		**	11	Ħ	11	n	
Xylenes (total)	ND ND	0.0480 0.0480	11	11	и .	# ··	11	Ħ	
Surr: a,a,a-TFT (FID)	110 %					"			
Surr: a,a,a-TFT (PID)	94.8 %	60-140 60-140							

North Creek Analytical - Portland



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Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 12:38

Gasoline Range Organics (n-Hexane to <n-Decane) and BTEX per AK101 and EPA 8021B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Note
01AMF9U04SL (P1G0207-04) Soil				····	Sampled: 07/0:	5/01 Rece	ived: 07/06/0		
Gasoline Range Organics	ND	2.04	mg/kg dry	1	AK101/8021B	07/10/01			
Benzene	ND	0.0510	" B " B GI J	"	# #	07/10/01	07/11/01	1071099	
Toluene	ND	0.0510	n	"	n	n	"	"	
Ethylbenzene	ND	0.0510	n		n	"	"	.,	
Xylenes (total)	ND	0.0510	11	**	n	n	"	" n	
Surr: a,a,a-TFT (FID)	116%	60-140							
Surr: a,a,a-TFT (PID)	99.3 %	60-140							
01AMF9U05SL (P1G0207-05) Soil					Sampled: 07/03	5/01 Recei	ived: 07/06/0	11	
Gasoline Range Organics	ND	1.78	mg/kg dry	1	AK101/8021B	07/10/01			
Benzene	ND	0.0444	"	11	AK101/6021B	07/10/01	07/11/01	1071099	
Toluene	ND	0.0444	11	п	11	**	"	"	
Ethylbenzene	ND	0.0444	н	n	**	n	n		
Xylenes (total)	ND	0.0444	n	n	**	н	n	n	
Surr: a,a,a-TFT (FID)	115 %	60-140							
Surr: a,a,a-TFT (PID)	98.4 %	60-140							
01AMF9U06SL (P1G0207-06) Soil					Sampled: 07/05	5/01 Recei	ived: 07/06/0)1	
Gasoline Range Organics	ND	2.35	mg/kg dry	1	AK101/8021B	07/10/01	07/11/01	1071099	
Benzene	ND	0.0589	#	11	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	11	"	10/1099	
Toluene	ND	0.0589	11		tt	17	ır	п	
Ethylbenzene	ND	0.0589	Ħ	**	n	11	11	II	
Xylenes (total)	ND	0.0589	n	11	n	11		н	
Surr: a,a,a-TFT (FID)	104 %	60-140							
Surr: a,a,a-TFT (PID)	89.4 %	60-140							

North Creek Analytical - Portland

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 12:38

Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/103 North Creek Analytical - Portland

	1 torth Creek Analytical - Portland												
Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes				
01AMF9U01SL (P1G0207-01) Soil					Sampled, 07/0	75/01 P			71010				
Diesel Range Organics	ND	25.0	mg/kg dry	1	Sampled: 07/0		ived: 07/06/						
Residual Range Organics	ND	50.0	" "	1 "	AK102/103	07/11/01	07/12/01	1071114					
Surr: 1-Chlorooctadecane	87.1 %	75-125											
Surr: Triacontane	118 %	50-150											
01AMF9U02SL (P1G0207-02) Soil					Sampled, 07/0	<i>5/</i> 01 D							
Diesel Range Organics	ND	25.0	mg/kg dry	1	Sampled: 07/0		ived: 07/06/						
Residual Range Organics	ND	50.0	mg/kg diy	1	AK102/103	07/11/01	07/12/01 "	1071114					
Surr: 1-Chlorooctadecane	79.2 %	75-125											
Surr: Triacontane	112 %	50-150											
01AMF9U03SL (P1G0207-03) Soil					Sampled: 07/0	5/01 Dans	J. 07/0 <i>6</i> /						
Diesel Range Organics	ND	25.0	mg/kg dry	1	AK102/103		ived: 07/06/0						
Residual Range Organics	ND	50.0	mg/kg ury	n	AK102/103	07/11/01 "	07/13/01	1071114					
Surr: 1-Chlorooctadecane	69.9 %	75-125											
Surr: Triacontane	91.0 %	50-150							S-07				
01AMF9U04SL (P1G0207-04) Soil				;	Sampled: 07/0:	5/01 Recei	ved: 07/06/0	11					
Diesel Range Organics	ND	25.0	mg/kg dry	1	AK102/103	07/11/01	07/13/01	1071114					
Residual Range Organics	ND	50.0	n	11	1 1102/105	7771701	07/13/01 "	10/1114					
Surr: 1-Chlorooctadecane	81.2 %	75-125											
Surr: Triacontane	106 %	50-150											
01AMF9U05SL (P1G0207-05) Soil				;	Sampled: 07/0:	5/01 Recei	ved: 07/06/0) 1					
Diesel Range Organics	ND	25.0	mg/kg dry	1	AK102/103	07/11/01	07/13/01	1071114					
Residual Range Organics	ND	50.0	"	11	"	07/11/01 H	"	10/1114					
Surr: 1-Chlorooctadecane	72.1 %	75-125							S-07				
Surr: Triacontane	101 %	50-150							//ا-د				

North Creek Analytical - Portland



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Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1

Project: Amchitka

Project Number: 210901, PO# 21090

Anchorage, AK 99502-1116

Project Manager: Anne Krarawetter

07/31/01 12:38

Reported:

Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/103 North Creek Analytical - Portland

		th Citth	Anaryu	cai - Po	ruand				
Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
01AMF9U06SL (P1G0207-06) Soil					Sampled: 07/0	5/01 Rece	ived: 07/06/		Notes
Diesel Range Organics Residual Range Organics	ND ND	25.0 50.0	mg/kg dry	1	AK102/103	07/11/01	07/13/01	1071114	
Surr: 1-Chlorooctadecane Surr: Triacontane	86.8 % 104 %	75-125 50-150							

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Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 12:38

Total Metals per EPA 6000/7000 Series Methods North Creek Analytical - Portland

			T TITLE J LI		i cittiici				
Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Note
01AMF9U01SL (P1G0207-01) Soil					Sampled: 07/0)5/01 Rece	ived: 07/06/	n1	·
Arsenic	2.32	0.500	mg/kg dry	1	EPA 6020				
Barium	12.2	1.00	mg/kg diy	10	EPA 6020	07/19/01	07/26/01	1071443	
Cadmium	ND	0.500	n	10	11		07/24/01	11	
Chromium	11.7	0.500	**	Ħ	n	11	11	Ħ	
Lead	0.902	0.500	11	11	 N	n n	11	Ħ	
Nickel	11.9	1.00		n	,, H	"	"	Ħ	
Vanadium	55.6	2.50	н	1	11	"	н	11	
01AMF9U02SL (P1G0207-02) Soil				S	Sampled: 07/0)5/01 Recei	ived: 07/06/0	11	
Arsenic	1.62	0.500	mg/kg dry	1	EPA 6020	07/19/01	07/26/01	1071443	
Barium	14.1	1.00	#	10	"	U//19/U1	07/24/01	10/1443	
Cadmium	ND	0.500	11	10		n	07/24/01	#	
Chromium	21.2	0.500	н	n	*	#	II.	11	
Lead	1.02	0.500	#	п	**		n	n	
Nickel	14.3	1.00	*	**	n		n	"	
Vanadium	98.5	2.50	#	1	Ħ	11	и	11	
01AMF9U03SL (P1G0207-03) Soil				S	Sampled: 07/0)5/01 Recei	ved: 07/06/0	11	
Arsenic	1.91	0.500	mg/kg dry	1	EPA 6020	07/19/01	07/26/01	1071443	*****
Barium	46.0	1.00	"	10	"	07/19/01 H	07/26/01	10/1443	
Cadmium	ND	0.500	11	"	n		07/24/01 n	**	
Chromium	27.1	0.500	11	11	Ħ	н	11		
Lead	1.84	0.500	**	11	"	H	11		
Nickel	39.8	1.00	н	11	н	Ħ	n		
Vanadium	132	2.50	11	1	н	11	"	,,	

North Creek Analytical - Portland

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Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 12:38

Total Metals per EPA 6000/7000 Series Methods North Creek Analytical - Portland

Trof th Creek Analytical - Portland												
Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes			
01AMF9U04SL (P1G0207-04) Soil					Sampled: 07/05	/01 Page	: 1. 07/0 <i>C</i> /	0.1				
Arsenic	3,79	0.500	mg/kg dry				ived: 07/06/					
Barium	28.8	1.00	ing/kg dry	1	EPA 6020	07/19/01	07/26/01	1071443				
Cadmium	ND	0.500		10	n n	Ħ	07/24/01	n				
Chromium	11.7	0.500	11	"		n	Ħ	11				
Lead	1.32	0.500	11	"	**	H	**	"				
Nickel	19.2				"	11	**	"				
Vanadium		1.00	"	11	11	"	tt	Ħ				
	56.0	2.50	"	1	Ħ	"	11	n .				
01AMF9U05SL (P1G0207-05) Soil				ç	Sampled: 07/05/	∕∩1 Race	ived: 07/06/0	0.1				
Arsenic	1.94	0.500	mg/kg dry									
Barium	28.0	1.00	mg/kg ury	1 10	EPA 6020	07/19/01	07/26/01	1071443				
Cadmium	ND	0.500	"	10	"		07/24/01	"				
Chromium	23.7	0.500	н	**	" H	"	11	u				
Lead	1.43	0.500	11		"	et 51	n	71				
Nickel	21.0	1.00	n	"	" "	,,	'n	Ħ				
Vanadium	115	2.50	"	1	"	,,	11	"				
01AMF9U06SL (P1G0207-06) Soil	110	2.50			Sampled: 07/05/			"				
Arsenic	18.0	0.500	/l 1				ved: 07/06/0		·			
Barium	35.3		mg/kg dry	1		07/19/01	07/26/01	1071443				
Cadmium		1.00		10	#	"	07/24/01	"				
Chromium	ND	0.500	"	11	u	H	11	n				
Lead	13.6	0.500	"	11	"	н	11	n				
Nickel	1.61	0.500	11	n	"	н	11	n				
	17.7	1.00	"	H	**	"	*	**				
Vanadium	73.0	2.50	**	1	tt .	11	n	er				

North Creek Analytical - Portland



Portland

Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090

Project Manager: Anne Krarawetter

Reported: 07/31/01 12:38

Polychlorinated Biphenyls per EPA Method 8082

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Note
01AMF9U01SL (P1G0207-01) Soil				9	Sampled: 07/0)5/01 Rece	ived: 07/06/		
Aroclor 1016	ND	67.0	ug/kg dry	1	EPA 8082	07/18/01			
Aroclor 1221	ND	134	-g.iguiy	"	LI A 6062	0//16/01	07/19/01	1071381	
Aroclor 1232	ND	67.0	Ħ	11	#	 N	"	"	
Aroclor 1242	ND	67.0	11		n		"	,	
Aroclor 1248	ND	67.0	11		**	"	"	"	
Aroclor 1254	ND	67.0	n	rı .	"	"	,,	n	
Aroclor 1260	ND	67.0	**	**	11	"	н н	11	
Surr: 2,4,5,6-Tetrachloro-m-xylene	86.6 %	63-119							
Surr: Decachlorobiphenyl	104 %	52-131							
01AMF9U02SL (P1G0207-02) Soil				ç	Sampled: 07/0	15/01 Rece	ived: 07/06/	01	
Aroclor 1016	ND	67.0	ug/kg dry	1	EPA 8082				
Aroclor 1221	ND	134	ng/kg tily	1	EPA 8082	07/18/01	07/19/01	1071381	
Aroclor 1232	ND	67.0		tr	,		"	11	
Aroclor 1242	ND	67.0	H	n	H		n	"	
Aroclor 1248	ND	67.0	н	н		" "	11		
Aroclor 1254	ND	67.0	Ħ	11	,,	"	11	,, n	
Aroclor 1260	ND	67.0	11	tt	n	и	" "	"	
Surr: 2,4,5,6-Tetrachloro-m-xylene	87.0 %	63-119							
Surr: Decachlorobiphenyl	99.7 %	52-131							
01AMF9U03SL (P1G0207-03) Soil				S	Sampled: 07/0	5/01 Recei	ived: 07/06/	01	
Aroclor 1016	ND	67.0	ug/kg dry	1	EPA 8082	07/18/01	07/19/01		
Aroclor 1221	ND	134	"	11	H 8082	07/18/01	0//19/01 11	1071381	
Aroclor 1232	ND	67.0	"	**	n	"	n	n	
Aroclor 1242	ND	67.0	11	Ħ	π .	N.	ır	81	
Aroclor 1248	ND	67.0	11	11	n	"	**	Ð	
Aroclor 1254	ND	67.0	**	11	•	н	Ħ	11	
Aroclor 1260	ND	67.0	n	11	н	11	н	#	
Surr: 2,4,5,6-Tetrachloro-m-xylene	83.7 %	63-119			70.7				
Surr: Decachlorobiphenyl	98.7 %	52-131							

North Creek Analytical - Portland



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Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported:

07/31/01 12:38

Polychlorinated Biphenyls per EPA Method 8082 North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Note
01AMF9U04SL (P1G0207-04) Soil					Sampled: 07/0)5/01 Rece	ived: 07/06/		·····
Aroclor 1016	ND	67.0	ug/kg dry	1	EPA 8082	07/18/01	07/19/01		
Aroclor 1221	ND	134	11	11	H 8082	U//10/U1	07/1 9 /01	1071381	
Aroclor 1232	ND	67.0	"	Ħ	"	11	W.	" "	
Aroclor 1242	ND	67.0	**	n	"	u		" "	
Aroclor 1248	ND	67.0	н	#		w		,,	
Aroclor 1254	ND	67.0	n	#	11		. 11	"	
Aroclor 1260	ND	67.0	"	n	11	**	 11	11	
Surr: 2,4,5,6-Tetrachloro-m-xylene	82.3 %	63-119						· · · · · · · · · · · · · · · · · · ·	
Surr: Decachlorobiphenyl	99.2 %	52-131							
01AMF9U05SL (P1G0207-05) Soil				S	Sampled: 07/0)5/01 Recei	ived: 07/06/	n 1	
Aroclor 1016	ND	67.0	ug/kg dry	1	EPA 8082	07/18/01	07/19/01	1071381	
Aroclor 1221	ND	134	# #	,	U A 0002	11 11 11 11	07/19/01	10/1381	
Aroclor 1232	ND	67.0	11	n	**	•			
Aroclor 1242	ND	67.0	tt	#		11			
Aroclor 1248	ND	67.0	11	Ħ		n	н	,,	
Aroclor 1254	ND	67.0	**	n	Ħ	**	"	"	
Aroclor 1260	ND	67.0	"		н	н	"	11	
Surr: 2,4,5,6-Tetrachloro-m-xylene	98.1 %	63-119							
Surr: Decachlorobiphenyl	115 %	52-131							
01AMF9U06SL (P1G0207-06) Soil				S	Sampled: 07/0	5/01 Recei	ived: 07/06/0	01	
Aroclor 1016	ND	67.0	ug/kg dry	1	EPA 8082	07/19/01	07/20/01	1071434	
Aroclor 1221	ND	134	"	#	# #	U//19/U1	"	10/1434	
Aroclor 1232	ND	67.0	**	11	11	n	**	, и	
Aroclor 1242	ND	67.0	н	11	n	11	11	ń	
Aroclor 1248	ND	67.0	н	. 17	**	"	11	Ħ	
Aroclor 1254	ND	67.0	11	11	n	11	11	H	
Aroclor 1260	ND	67.0	Ħ	н	n	Ħ	U	ir.	
Surr: 2,4,5,6-Tetrachloro-m-xylene	83.6 %	63-119							
Surr: Decachlorobiphenyl	101 %	52-131							

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Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 12:38

Volatile Organic Compounds per EPA Method 8260B North Creek Analytical - Portland

					i danu				
Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
01AMF9U01SL (P1G0207-01) Soil					Sampled: 07/0	5/01 Page	ived: 07/06/		- 10100
Acetone	ND	1450	ug/kg dry						
Benzene	ND	58.0	ug/kg ury	1	EPA 8260B	07/14/01	07/15/01	1071265	
Bromobenzene	ND	58.0	,	 H	" H	Ħ	Ħ	"	
Bromochloromethane	ND	58.0	11		"	it	n	**	
Bromodichloromethane	ND	58.0	Ħ	" "	"	Ħ	11	**	
Bromoform	ND	58.0	. #	"	"	#	**	H	
Bromomethane	ND	290	**	,,	"	H	"	,,	
2-Butanone	ND	580	*1	n		n	n	"	
n-Butylbenzene	ND	290	11	"	,,		11	**	
sec-Butylbenzene	ND	58.0	н	 H	"	II	n	**	
tert-Butylbenzene	ND	58.0	11	"		11	11	11	
Carbon disulfide	ND				11	H	H	**	
Carbon tetrachloride	ND	580 58.0	" "	"	fr	**	n	н	
Chlorobenzene	ND ND		"	97 91	H	n	II .	11	
Chloroethane	ND ND	58.0	n		**	TV	н	"	
Chloroform	ND ND	58.0	" "	11	**	n	11	Ħ	
Chloromethane	ND	58.0	11	"		**	"	н	
2-Chlorotoluene	ND	290	"	"	11	"	11	н	
4-Chlorotoluene	ND	58.0 58.0	" P	"	n	n	11	11	
1,2-Dibromo-3-chloropropane	ND		11	"	11	11	Ħ	н	
Dibromochloromethane	ND	290			"	11	Ħ	**	
1,2-Dibromoethane	ND	58.0		**	н	**	11	"	
Dibromomethane		58.0	n n	11	н	Ħ	"	"	
1,2-Dichlorobenzene	ND	58.0		"	u	11	n	"	
1,3-Dichlorobenzene	ND ND	58.0	"	rr tr	"	11	11	**	
1,4-Dichlorobenzene	ND ND	58.0	" "	"		H	n	**	
Dichlorodifluoromethane	ND ND	58.0 290	11	"	11	н	"	**	
1,1-Dichloroethane	ND	58.0	11	n	"	"	"	Ħ	
1,2-Dichloroethane	ND	58.0 58.0		"			II .	н	
1,1-Dichloroethene	ND	58.0		"	"	H	11	at .	
cis-1,2-Dichloroethene	ND	58.0	11	"	11		n	"	
trans-1,2-Dichloroethene	ND	58.0	11		11	"	"	"	
1,2-Dichloropropane	ND		,,	"		Ħ	H	11	
1,3-Dichloropropane	ND ND	58.0	"		N	n	11	17	
2,2-Dichloropropane	ND ND	58.0	"	"	11	**	н	"	
1,1-Dichloropropene	ND ND	58.0	"	π	11	"	. 11	11	
cis-1,3-Dichloropropene	ND ND	58.0	"		"	u	11	n	
rans-1,3-Dichloropropene	ND ND	58.0	н	**		"	"	11	
Ethylbenzene	ND ND	58.0	"	#! B	Ħ	"	"	Ħ	
y	מא	58.0	"	n	11	11		**	

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Jerry Orlando, Project Manager/QA

North Creek Analytical, Inc. **Environmental Laboratory Network**

10 of 46



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Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 12:38

Volatile Organic Compounds per EPA Method 8260B North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Note	
01AMF9U01SL (P1G0207-01) Soil				Sampled: 07/05/01 Received: 07/06/01						
Hexachlorobutadiene	ND	116	ug/kg dry	1	EPA 8260B					
2-Hexanone	ND	580	ug/kg uly	1 11	EPA 8260B	07/14/01 "	07/15/01	1071265		
sopropylbenzene	ND	116	Ħ	*1		"		H		
o-Isopropyltoluene	ND	116	11	11	"	H		H		
1-Methyl-2-pentanone	ND	290	8	**	" n		H	Ħ		
Methyl tert-butyl ether	ND	58.0	"		,,		Ħ	H		
Methylene chloride	ND	290	n		" "	11	11	**		
Naphthalene	ND	116	11		" 11		11	Ħ		
n-Propylbenzene	ND	58.0	**		 **	H	"	н		
Styrene	ND	58.0	"			n	"	н		
1,1,1,2-Tetrachloroethane	ND	58.0	11		" "	11	"	Ħ		
1,1,2,2-Tetrachloroethane	ND	58.0	**	н		"	н	"		
Tetrachloroethene	ND	58.0	Ħ	#		" "	11			
Toluene	ND	58.0	11	n	н	,,	n			
,2,3-Trichlorobenzene	ND	58.0	11	**	11	n				
,2,4-Trichlorobenzene	ND	58.0	11	 H	"	11	#	11		
,1,1-Trichloroethane	ND	58.0	**	11	 H	"		11		
,1,2-Trichloroethane	ND	58.0	,,		 H	"	#	n		
Trichloroethene	ND	58.0	11		11	n	**	n		
richlorofluoromethane	ND	58.0	**			"	"	п		
,2,3-Trichloropropane	ND	58.0	**	11	"	,	"	11		
,2,4-Trimethylbenzene	ND	58.0	11	11	,,	"	"	"		
,3,5-Trimethylbenzene	ND	58.0	ŧ				11			
Vinyl chloride	ND	58.0	19	H		" n	"			
-Xylene	ND	58.0	31	,,	"	" "				
n,p-Xylene	ND	116	Ħ	"	"	n	H	11		
Surr: 4-BFB	97.0 %	70-130					· · · · · · · · · · · · · · · · · · ·	"		
Surr: 1,2-DCA-d4	91.0 %	70-130 70-130								
Surr: Dibromofluoromethane	95.5 %	70-130 70-130								
Surr: Toluene-d8	106 %	70-130 70-130								

North Creek Analytical - Portland

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Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 12:38

Volatile Organic Compounds per EPA Method 8260B North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
01AMF9U02SL (P1G0207-02) Soil					Sampled: 07/0	5/01 Recei	ved: 07/06/0		····
Acetone	ND	1660	ug/kg dry	1	EPA 8260B	07/14/01	07/16/01	1071265	
Benzene	ND	66.3	"	и	"	. 11	07/10/01 H	10/1203	
Bromobenzene	ND	66.3	н	17	11		11		
Bromochloromethane	ND	66.3	n	11	#	*1	п	et .	
Bromodichloromethane	ND	66.3	n		11	0	N	,	
Bromoform	ND	66.3	Ħ		#f	11	н	n	
Bromomethane	ND	332	Ħ	n	**	n	H	**	
2-Butanone	ND	663	n	n	11	Ħ	n	11	
n-Butylbenzene	ND	332	11	"	11	,	"		
sec-Butylbenzene	ND	66.3	n	"	*1	n		"	
tert-Butylbenzene	ND	66.3	n		#1	,		" n	
Carbon disulfide	ND	663	11	,	Ħ	" H	" "	"	
Carbon tetrachloride	ND	66.3	**	**	H	"	"	"	
Chlorobenzene	ND	66.3		tt		"	"	,,	
Chloroethane	ND	66.3	**	n	"		"	#	
Chloroform	ND	66.3	**	n		" "	" "	"	
Chloromethane	ND	332	11	91	ti	"		"	
2-Chlorotoluene	ND	66.3	"	ft		"	"	"	
4-Chlorotoluene	ND	66.3	н	11	 H		"	"	
1,2-Dibromo-3-chloropropane	ND	332	n	11	н	" "	"	"	
Dibromochloromethane	ND	66.3		11	" !!	"	"	"	
1,2-Dibromoethane	ND	66.3	"		" "	" "	"	"	
Dibromomethane	ND	66.3	11		"	,,	" B	"	
1,2-Dichlorobenzene	ND ND	66.3	11			" #	"	"	
1,3-Dichlorobenzene	ND	66.3	11	"		,,	" H	"	
1,4-Dichlorobenzene	ND	66.3	н	**		"	"	" #	
Dichlorodifluoromethane	ND	332	11	#1	,	 11		" #	
1,1-Dichloroethane	ND	66.3	11	n	11			n R	
1,2-Dichloroethane	ND	66.3	11	Ħ	11		,. H	"	
1,1-Dichloroethene	ND	66.3	11	n	11		"	"	
cis-1,2-Dichloroethene	ND ND	66.3	11	,,	"	#	" "	"	
trans-1,2-Dichloroethene	ND	66.3	11		 H	"	"	"	
1,2-Dichloropropane	ND ND		"	"	"	"		,	
1,3-Dichloropropane	ND ND	66.3 66.3	"	,	11	**	n n	"	
2,2-Dichloropropane	ND ND	66.3	"	"	"	"		11	
1,1-Dichloropropene	ND ND	66.3	"	"	"	n ti	n n	"	
cis-1,3-Dichloropropene	ND ND	66.3	,,	37 37	" "	17	"	"	
trans-1,3-Dichloropropene	ND	66.3	" H	,,	"	17 El			
Ethylbenzene	ND ND	66.3	" It	11	11	"	#	n n	

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Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 12:38

Volatile Organic Compounds per EPA Method 8260B North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Note
01AMF9U02SL (P1G0207-02) Soil				5	Sampled: 07/0	5/01 Recei	ived: 07/06/		
Hexachlorobutadiene	ND	133	ug/kg dry	1	EPA 8260B	07/14/01			
2-Hexanone	ND	663	11	11	E1 71 020013	0//14/01	07/16/01	1071265	
Isopropylbenzene	ND	133	11	11	11	,	,,	"	
p-Isopropyltoluene	ND	133	11	n	**	11	"	**	
4-Methyl-2-pentanone	ND	332	"	н	"	,	"	H	
Methyl tert-butyl ether	ND	66.3	.11		11		"	11	
Methylene chloride	ND	332	**	11	11	,,	"	H	
Naphthalene	ND	133	11	11	n	**	. 11	"	
n-Propylbenzene	ND	66.3	17	ti	*		11	n	
Styrene	ND	66.3	Ħ	н	*1	,,	"	H	
1,1,1,2-Tetrachloroethane	ND	66.3	Ħ	"	11	"	11	11	
1,1,2,2-Tetrachloroethane	ND	66.3		11	,	"	11	Ħ	
Tetrachloroethene	ND	66.3	11	H	,	" H	11	Ħ	
Foluene	ND	66.3		11	"	" "		п	
1,2,3-Trichlorobenzene	ND	66.3	и	**	11	tt	Ħ	"	
1,2,4-Trichlorobenzene	ND	66.3	**	11	"	11	11	H	
1,1,1-Trichloroethane	ND	66.3	n	11		n	III	IT	
1,1,2-Trichloroethane	ND	66.3	11	11	,,	11		11	
Frichloroethene	ND	66.3	11	11	11	11	11	11	
Frichlorofluoromethane	ND	66.3	**	11		"	π	11	
1,2,3-Trichloropropane	ND	66.3	*1	ti	,,	" #	**	11	
1,2,4-Trimethylbenzene	ND	66.3	н	11		"	n	"	
1,3,5-Trimethylbenzene	ND	66.3	H	**	"	,,	.11		
Vinyl chloride	ND	66.3	11	tr .	n	11	, "	**	
o-Xylene	ND	66.3	11	11	tt	"	"	**	
n,p-Xylene	ND	133	11	11	"	11	,,	11 11	
Surr: 4-BFB	93.9 %	70-130				···			
Surr: 1,2-DCA-d4	93.2 %	70-130							
Surr: Dibromofluoromethane	97.3 %	70-130							
Surr: Toluene-d8	107 %	70-130							

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Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 12:38

Volatile Organic Compounds per EPA Method 8260B North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
01AMF9U03SL (P1G0207-03) Soil					Sampled: 07/0		ived: 07/06/		11010.
Acetone	ND	1200	ug/kg dry	1	EPA 8260B				
Benzene	ND	48.0	ug ng ury	1	EFA 6200B	07/14/01 "	07/16/01	1071265	
Bromobenzene	ND	48.0	Ħ	"	n e	" "	"	H	
Bromochloromethane	ND	48.0	11	11	11	"	W N	\$F	
Bromodichloromethane	ND	48.0	11	11	 H	" II	,,	Ħ	
Bromoform	ND	48.0	11	Ħ		"		II .	
Bromomethane	ND	240	**	**		"		n	
2-Butanone	ND	480	н	n		,	ŧ	n	
n-Butylbenzene	ND	240	11		"		"	"	
ec-Butylbenzene	ND	48.0	11		"	n	"	n	
ert-Butylbenzene	ND	48.0	н	"		Ħ	11	11	
Carbon disulfide	ND	480	"	"	"	Ħ	н	**	
Carbon tetrachloride	ND	48.0	11	n	11	ti .	н	n	
Chlorobenzene	ND	48.0	11	" "	**	ti	π	п	
Chloroethane	ND	48.0	"			11	11	n	
Chloroform	ND	48.0	"	 H	,	"	11	**	
Chloromethane	ND	240		"	"	"	H	Ħ	
-Chlorotoluene	ND ND	48.0		"	"	ft .	Ħ	"	
-Chlorotoluene	ND	48.0	11	"	"	Ħ	11	Ħ	
,2-Dibromo-3-chloropropane	ND		11	"		Ħ	n	11	
Dibromochloromethane	ND	240	11			н	tt	"	
,2-Dibromoethane	ND ND	48.0	11	11	n	n	17	11	
Dibromomethane	ND	48.0	"	"	Ħ	**	11	11	
,2-Dichlorobenzene	ND ND	48.0	"	"	n	"	**	**	
,3-Dichlorobenzene	ND ND	48.0 48.0	"	,,	11	"	11	u	
,4-Dichlorobenzene	ND	48.0 48.0		,, 11	"	11	**	"	
Dichlorodifluoromethane	ND	240	11	n	" "	**	#	п	
,1-Dichloroethane	ND	48.0	,,		0	11	H	11	
,2-Dichloroethane	ND	48.0 48.0		 H	"		11	n .	
,1-Dichloroethene	ND	48.0 48.0	и		" n	11	11	11	
is-1,2-Dichloroethene	ND ND	48.0 48.0	"	,,		11	Ħ	11	
rans-1,2-Dichloroethene	ND ND		"	,,		11	Ħ	π	
,2-Dichloropropane	, ND ND	48.0	"		n	"	11	*1	
,3-Dichloropropane	ND ND	48.0	"	11	H	"	11	"	
,2-Dichloropropane	ND ND	48.0	"	"	"	**	11	#	
,1-Dichloropropene	ND ND	48.0	11		"	"	11	11	
is-1,3-Dichloropropene	ND ND	48.0	11	11	"	11	17	II.	
rans-1,3-Dichloropropene		48.0	"		"	11	n	11	
thylbenzene	ND ND	48.0 48.0	11	11	11	n	11	H	

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Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1

Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 12:38

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Note
01AMF9U03SL (P1G0207-03) Soil					Sampled: 07/0		d. 07/07/		. 1010.
Hexachlorobutadiene	ND	95.9	ug/kg dry				ved: 07/06/		
2-Hexanone	ND	480	ug/kg ury	1	EPA 8260B	07/14/01	07/16/01	1071265	
Isopropylbenzene	ND	95.9		"		II	"	Ħ	
p-Isopropyltoluene	ND	95.9	"	11	"	Ħ	"	tt	
4-Methyl-2-pentanone	ND	240	"	n	**	"	"	"	
Methyl tert-butyl ether	ND	48.0	,, 11	n n	Ħ	n	II .	*1	
Methylene chloride	ND	46.0 240	n	n .	II .	11	11	77	
Naphthalene	ND		11	п	II	Ħ	ï	n	
n-Propylbenzene	ND	95.9 48.0	" "	**	11	It	H	**	
Styrene	ND	48.0	" #		**	n	11	11	
1,1,1,2-Tetrachloroethane	ND		"	11	n	If	"	11	
1,1,2,2-Tetrachloroethane	ND	48.0	"	" n	11	n	n	11	
Tetrachloroethene	ND ND	48.0	"		"I	n	11	#	
Toluene	ND ND	48.0		n	•	11	Ħ	"	
1,2,3-Trichlorobenzene		48.0	H	'n	TT TT	n	11	п	
1,2,4-Trichlorobenzene	ND	48.0	"	11	Ħ	n	tt	ti	
1,1,1-Trichloroethane	ND	48.0	**	п	"	31	11	"	
1,1,2-Trichloroethane	ND	48.0	11	**	11	H	#	"	
Trichloroethene	ND	48.0	"	n	"	н	Ħ	*1	
Trichlorofluoromethane	ND	48.0	n n	**	n	Ħ	n	n	
1,2,3-Trichloropropane	ND ND	48.0	"	11	11	Ħ	ti	R	
1,2,4-Trimethylbenzene	ND ND	48.0	"	"	**	"	Ħ	n	
1,3,5-Trimethylbenzene		48.0		n	"	Ħ	11	и	
Vinyl chloride	ND	48.0	11	H	"	H	H	n	
o-Xylene	ND	48.0	tt	11	11	11	n	n	
m,p-Xylene	ND	48.0	"	11	"	H	Ħ	n	
	ND	95.9	#		11	H	#	Ħ	
Surr: 4-BFB	92.2 %	70-130							
Surr: 1,2-DCA-d4	93.9 %	70-130							
Surr: Dibromofluoromethane Surr: Toluene-d8	94.8 %	70-130							
ourr. 10iuene-ao	108 %	70-130							

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Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 12:38

Volatile Organic Compounds per EPA Method 8260B North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Pot-1	
01AMF9U04SL (P1G0207-04) Soil								Batch	Notes
Acetone	ND	1070			Sampled: 07/0	5/01 Recei	ived: 07/06/0	01	
Benzene	ND ND	1270	ug/kg dry	1	EPA 8260B	07/14/01	07/16/01	1071265	
Bromobenzene	ND ND	51.0	H	н	Ħ	n '	n	N	
Bromochloromethane		51.0		tt .	н	11	11	n	
Bromodichloromethane	ND ND	51.0	11	H	"	r r	"	11	
Bromoform		51.0	11	11	"	**	**	n	
Bromomethane	ND	51.0	Ħ	11	···	"	n	n	
2-Butanone	ND	255	11	n	If	Ħ	tr	**	
n-Butylbenzene	ND	510	"	n	n	н	"	n	
sec-Butylbenzene	ND	255	"	Ħ	Ħ	. tr	н	н	
tert-Butylbenzene	ND	51.0	"	**	**	Ħ	11	R	
Carbon disulfide	ND	51.0	n	Ħ	11		н	**	
Carbon tetrachloride	ND	510	*1	n	Ħ	11	"	"	
Chlorobenzene	ND	51.0	n	#1	н	n	11	19	
Chloroethane	ND	51.0	11	н	11	n	IT	н	
Chloroform	ND	51.0	Ħ	"	tr	n	**	11	
Chloromethane	ND	51.0	п	11		**	11	11	
2-Chlorotoluene	ND	255	n	n	н	11		17	
4-Chlorotoluene	ND	51.0	"	11	11	*	н	n	
	ND	51.0	H	Ħ	n	ft	u	п	
1,2-Dibromo-3-chloropropane	ND	255	lf .	п	n	u	II	**	
Dibromochloromethane	ND	51.0	11	11	n	н	11	11	
1,2-Dibromoethane	ND	51.0	n .	"	m	n .	11	11	
Dibromomethane	ND	51.0	Ħ	11	11	#	**		
1,2-Dichlorobenzene	ND	51.0	11	Ħ	n	Ħ	я	**	
1,3-Dichlorobenzene	ND	51.0	**	11	n	11	n	n	
1,4-Dichlorobenzene	ND	51.0	11	11	Ħ	n	Ħ	"	
Dichlorodifluoromethane	ND	255	Ħ	н	II .	11	н	н	
1,1-Dichloroethane	ND	51.0	Ħ	11	"	91	n	**	
,2-Dichloroethane	ND	51.0	91	11	11	н	11	#	
1,1-Dichloroethene	ND	51.0	tt	19	**	н .	#	R	
cis-1,2-Dichloroethene	ND	51.0	Ħ			Ħ	**	**	
rans-1,2-Dichloroethene	ND	51.0	H	11	"	"	n	ti	
,2-Dichloropropane	ND	51.0	IT	tr	n	,	**	,,	
,3-Dichloropropane	ND	51.0	**	Ħ	п	n	,,	"	
2,2-Dichloropropane	ND	51.0	11	11	Ħ	11	 H	" "	
,1-Dichloropropene	ND	51.0	11	11	**	н	 M		
is-1,3-Dichloropropene	ND	51.0	n	n	11		n	"	
rans-1,3-Dichloropropene	ND	51.0	11	11	n .	**		"	
Ethylbenzene	ND	51.0	a.	**	Ħ		"	"	

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Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 12:38

Volatile Organic Compounds per EPA Method 8260B North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Note
01AMF9U04SL (P1G0207-04) Soil					Sampled: 07/0	5/01 Recei	ived: 07/06/		
Hexachlorobutadiene	ND	102	ug/kg dry	1	EPA 8260B				
2-Hexanone	ND	510	" " " " " " " " " " " " " " " " " " "	11	EFA 6200B	07/14/01	07/16/01	1071265	
Isopropylbenzene	ND	102	11	**	n		"	11	
p-Isopropyltoluene	ND	102	11	ı		"	"	IT	
4-Methyl-2-pentanone	ND	255	11	II.	11	"	" "	Ħ	
Methyl tert-butyl ether	ND	51.0	11	11		"	"	"	
Methylene chloride	ND	255	11	n		" "	n	# !!	
Naphthalene	ND	102	11	R	,,		"	11	
n-Propylbenzene	ND	51.0	11	"	,,	" 11	"	"	
Styrene	ND	51.0	н	"	ti		"	"	
1,1,1,2-Tetrachloroethane	ND	51.0	n	**	Ħ	"	"	11	
1,1,2,2-Tetrachloroethane	ND	51.0		11	17	"	"	"	
Tetrachloroethene	ND	51.0	*1	"	11	,,	"	и	
Foluene Foluene	ND	51.0	Ħ	н	11	,,	n	-	
1,2,3-Trichlorobenzene	ND	51.0	n	n	 H	,,	H	H	
1,2,4-Trichlorobenzene	ND	51.0	11	n		,,	"	11	
1,1,1-Trichloroethane	ND	51.0	ŧı	11	"	"	,,	11	
1,1,2-Trichloroethane	ND	51.0	"	11	**	"	"	11	
Trichloroethene	ND	51.0	"	11	**	,,	"	"	
Frichlorofluoromethane	ND	51.0	11	11	,		" H	11	
1,2,3-Trichloropropane	ND	51.0	**	"	n		н	"	
1,2,4-Trimethylbenzene	ND	51.0		"	11	11	11	"	
1,3,5-Trimethylbenzene	ND	51.0	н	**	,,	н	11	"	
Vinyl chloride	ND	51.0	и	n .	**	11	11	"	
o-Xylene	ND	51.0	11	,,	11	"	11	"	
n,p-Xylene	ND	102	n	n	11		**	#	
Surr: 4-BFB	93.0 %	70-130							
Surr: 1,2-DCA-d4	94.7 %	70-130							
Surr: Dibromofluoromethane	97.4 %	70-130							
Surr: Toluene-d8	109 %	70-130							

North Creek Analytical - Portland



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Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 12:38

Volatile Organic Compounds per EPA Method 8260B North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Note
01AMF9U05SL (P1G0207-05) Soil									Note
Acetone	ND	1110	// 1		Sampled: 07/0		ved: 07/06/	01	
Benzene	ND	44.4	ug/kg dry "	1	EPA 8260B	07/14/01	07/16/01	1071265	
Bromobenzene	ND	44.4 44.4	H	17	11	11	n	P .	
Bromochloromethane	ND	44.4 44.4	"	"	11	"	"	tr	
Bromodichloromethane	ND	44.4 44.4	 H	π	IT	П	"	11	
Bromoform	ND	44.4 44.4	11	"	n	и	"	rr	
Bromomethane	ND	222	" #I	"	"	"	11	"	
2-Butanone	ND	444	11	,,	11	11	11	н	
n-Butylbenzene	ND	222	,,	"	11	H	11	н	
sec-Butylbenzene	ND		"		Ħ	π	"	"	
ert-Butylbenzene	ND	44.4	n	Ħ	"	n	Ħ	н	
Carbon disulfide	ND	44.4 444	"	"	Ħ	n	tt	"	
Carbon tetrachloride	ND	444 44.4	n	"	**	"	11	**	
Chlorobenzene	ND	44.4 44.4	"	"	n	"	Ħ	#	
Chloroethane	ND ND	44.4 44.4	"	"	H	11	"	"	
Chloroform	ND	44.4 44.4	,,	11		11	11	rı	
Chloromethane	ND	44.4 222	"	"	Ħ	11	n	*1	
2-Chlorotoluene	ND	44.4	n		**	Ħ	11	**	
I-Chlorotoluene	ND ND		n	**	If	11	н	"	
,2-Dibromo-3-chloropropane	ND ND	44.4	"	11	*1	Ħ	11	н .	
Dibromochloromethane	ND ND	222		11	Ħ	11	"	н	
,2-Dibromoethane		44.4	"	n	Ħ	II.	tt	11	
Dibromomethane	ND	44.4	91 11	н	11	Й	, H	11	
,2-Dichlorobenzene	ND ND	44.4	n	n	n	"	ii .	n	
,3-Dichlorobenzene	ND ND	44.4	"	11	n	n	"	Ħ	
.4-Dichlorobenzene	ND ND	44.4	"	11	11	17	H	**	
Dichlorodifluoromethane	ND ND	44.4	11	"	"	н	If	n	
,1-Dichloroethane	ND ND	222	n	"	H	Ħ	Ħ	H	
,2-Dichloroethane	ND ND	44.4	"	. "	n	II .	**	n	
,1-Dichloroethene	ND ND	44.4	"		. 11	Ħ	n	п	
is-1,2-Dichloroethene	ND ND	44.4	"	***	II	11	n	п	
rans-1,2-Dichloroethene		44.4	"	"	11	n	Ħ	"	
,2-Dichloropropane	ND ND	44.4	"	н .	n	n	n	11	
,3-Dichloropropane	ND ND	44.4	"	11		Ħ	tt	п	
,2-Dichloropropane	ND ND	44.4 44.4	"	"	"	Ħ	n	ĮI.	
,1-Dichloropropene	ND ND	44.4 44.4	**	"		n	11	Ħ	
is-1,3-Dichloropropene	ND ND	44.4 44.4	"	"	"	11	n	ıı	
rans-1,3-Dichloropropene	ND	44.4 44.4	11	"	11		"	IT	
Ethylbenzene	ND	44.4 44.4	"	"	"	ei Pr	H	n	

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Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 12:38

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
01AMF9U05SL (P1G0207-05) Soil					Sampled: 07/0	5/01 Recei	ived: 07/06/0	n1	
Hexachlorobutadiene	ND	88.8	ug/kg dry	1	EPA 8260B	07/14/01	07/16/01		
2-Hexanone	ND	444	"	"	"	07/14/01	07/16/01	1071265	
Isopropylbenzene	ND	88.8	11	11	Ħ	,,	 11	,,	
p-Isopropyltoluene	ND	88.8	11	н	11	"	" "		
4-Methyl-2-pentanone	ND	222	#	**	Ħ	"	"	11	
Methyl tert-butyl ether	ND	44.4	n	**	n	"	"	Ħ	
Methylene chloride	ND	222	tt.	11	**	"	**	"	
Naphthalene	ND	88.8	n	17		"	11	n	
n-Propylbenzene	ND	44.4	n	**		"	n	11	
Styrene	ND	44.4	11		,,		11	**	
1,1,1,2-Tetrachloroethane	ND	44.4	u	**	**	"	W H	"	
1,1,2,2-Tetrachloroethane	ND	44.4	**	11	"	,	"	If	
Tetrachloroethene	ND	44.4	"	**	,,	n	" "	11	
Toluene	ND	44.4	11	**	II	" #		TT .	
1,2,3-Trichlorobenzene	ND	44.4	11	11		"	"	n	
1,2,4-Trichlorobenzene	ND	44.4	н	11	,,	rr Ir	**	n	
1,1,1-Trichloroethane	ND	44.4	11	,	 H	" "	"	n	
1,1,2-Trichloroethane	ND	44.4	**	**		" "	11	n .	
Trichloroethene	ND	44.4	11	**	**	,,	H	II	
Trichlorofluoromethane	ND	44.4	"	n			"	"	
1,2,3-Trichloropropane	ND	44.4	**	11	,,	 II	11		
1,2,4-Trimethylbenzene	ND	44.4	11	**	It	"	11	"	
1,3,5-Trimethylbenzene	ND	44.4	11		"	 11	" "	17	
Vinyl chloride	ND	44.4	11	11	n	ri ri	"		
o-Xylene	ND	44.4	**	91		" "	"	n n	
n,p-Xylene	ND	88.8	Ħ	n	Nr.	"	"	,,	
Surr: 4-BFB	92.7 %	70-130				· · · · · · · · · · · · · · · · · · ·			
Surr: 1,2-DCA-d4	96.2 %	70-130							
Surr: Dibromofluoromethane	95.2 %	70-130							
Surr: Toluene-d8	108 %	70-130							

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Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 12:38

Volatile Organic Compounds per EPA Method 8260B North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
01AMF9U06SL (P1G0207-06) Soil					Sampled: 07/0	 	"		Notes
Acetone	ND	1470					ived: 07/06/	01	
Benzene	ND	58.9	ug/kg dry	1	EPA 8260B	07/14/01	07/16/01	1071265	
Bromobenzene	ND	58.9	"	"	n	Ħ	H	11	
Bromochloromethane	ND	58.9	11	"	11	"	11	н	
Bromodichloromethane	ND	58.9		" "		n	H	11	
Bromoform	ND	58.9	11		# ···	H	11	n	
Bromomethane	ND	294	11		"	"	n	**	
2-Butanone	ND	589	11	"	n B	"	11	ŧŧ	
n-Butylbenzene	ND	294	"	"		н	H	**	
sec-Butylbenzene	ND ND		. 11		#1	11	11	н	
tert-Butylbenzene	ND ND	58.9	. "	11	n	H	"	"	
Carbon disulfide	ND ND	58.9	"	"	*	H	II .	"	
Carbon tetrachloride		589		n	11	**	n	H	
Chlorobenzene	ND ND	58.9	n	11	"	n	**	"	
Chloroethane	ND ND	58.9	н	"	n	11	"	"	
Chloroform	ND ND	58.9 58.9	n n	FT - 91	"	"	Ħ	"	
Chloromethane	ND ND		"	n	n	H	"	11	
2-Chlorotoluene	ND	294	,,		H	н	n	11	
4-Chlorotoluene	ND	58.9	"	11	11	11	n	n	
1,2-Dibromo-3-chloropropane	ND ND	58.9	"		"	н	**	11	
Dibromochloromethane		294		"	tr .	11	н	Ħ	
1,2-Dibromoethane	ND	58.9	17	11	"	"	H	H	
Dibromomethane	ND	58.9	. 11	Ħ	**	11	Ħ	91	
1,2-Dichlorobenzene	ND	58.9	11	#	11	11	#	n	
1,3-Dichlorobenzene	ND	58.9	11	я	"	n	11	н	
1,4-Dichlorobenzene	ND	58.9	"	"	11	11	11	#	
Dichlorodifluoromethane	ND ND	58.9	Ħ	IT	**	11	**	11	
1,1-Dichloroethane		294		11	н	n	11	HI .	
1,2-Dichloroethane	ND	58.9	11	11	n	11	н	n	
1,1-Dichloroethene	ND	58.9	"	"	n	**	n	ŧ	
cis-1,2-Dichloroethene	ND	58.9	"	H	**	H	Ħ	Ħ	
trans-1,2-Dichloroethene	ND	58.9	11	n	Ħ	H	#	н	
1,2-Dichloropropane	ND	58.9	tr	**	н	**	n	11	
1,3-Dichloropropane	ND	58.9	н	u	*	u	n	tt	
2,2-Dichloropropane	ND	58.9	11	11	**	11	11	Ħ	
1,1-Dichloropropene	ND	58.9		Ħ	n	**	11	11	
cis-1,3-Dichloropropene	ND	58.9	"	ti	Ħ	ti .	п	u	
trans-1,3-Dichloropropene	ND	58.9	"	11	11	ft .	**	11	
Ethylbenzene	ND ND	58.9	H	#		**	ŧ	n	
	ND	58.9	71	#1	n '	**	11	n	

North Creek Analytical - Portland

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Jerry Orlando, Project Manager/QA

North Creek Analytical, Inc. **Environmental Laboratory Network**

20 of 46



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541.383.9310 fax 541.387.7588

541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 12:38

Volatile Organic Compounds per EPA Method 8260B North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Note
01AMF9U06SL (P1G0207-06) Soil					Sampled: 07/0	5/01 Recei	ved: 07/06/	n1	
Hexachlorobutadiene	ND	118	ug/kg dry	1	EPA 8260B	07/14/01	07/16/01		
2-Hexanone	ND	589	#	11	"	07/14/01 H	U//10/UI "	1071265	
Isopropylbenzene	ND	118	Ħ	n		n	" "	"	
p-Isopropyltoluene	ND	118	11	**	Ħ	π	"	" n	
4-Methyl-2-pentanone	ND	294	m	li .		11	"	,,	
Methyl tert-butyl ether	ND	58.9		"	91		" "		
Methylene chloride	ND	294	H	n	**	")†	n	
Naphthalene	ND	118	п	11	n	,,	,, 11	" "	
n-Propylbenzene	ND	58.9	**	n	"		" "	11	
Styrene	ND	58.9	11	"	н		"	" .	
1,1,1,2-Tetrachloroethane	ND	58.9	н	11	**		. 11		
1,1,2,2-Tetrachloroethane	ND	58.9	11	11	"	,	"	и	
Tetrachloroethene	ND	58.9	11	n	"		u	,,	
Toluene	ND	58.9	11	n			"	"	
1,2,3-Trichlorobenzene	ND	58.9	11	II	,,	"	" "	,,	
1,2,4-Trichlorobenzene	ND	58.9	**	**	**	"	"	"	
1,1,1-Trichloroethane	ND	58.9	11	11	11	"	"	"	
1,1,2-Trichloroethane	ND	58.9	11		11	,	"	"	
Trichloroethene	ND	58.9	Ħ	**	н			" "	
Trichlorofluoromethane	ND	58.9	н	**	11	10	,,	" "	
1,2,3-Trichloropropane	ND	58.9	**	rt .	**	l)	"		
1,2,4-Trimethylbenzene	ND	58.9	**	n	11	#	"	н	
1,3,5-Trimethylbenzene	ND	58.9		n		п	,,	**	
Vinyl chloride	ND	58.9	11	ŧŧ	11	"	If	11	
o-Xylene	ND	58.9	91	"	11	"	#	n	
n,p-Xylene	ND	118	п	"	11	n	11	11	
Surr: 4-BFB	95.5 %	70-130	·			· · · · · · · · · · · · · · · · · · ·			
Surr: 1,2-DCA-d4	94.0 %	70-130							
Surr: Dibromofluoromethane	97.0 %	70-130							
Surr: Toluene-d8	108 %	70-130							

North Creek Analytical - Portland

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Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 12:38

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
01AMF9U07SL (P1G0207-07) Other wet					Sampled: 07/0		ived: 07/06/0		****
Acetone	ND	2500	ug/kg wet	1	EPA 8260B	07/16/01			P-02
Benzene	ND	100	" " " " " " " " " " " " " " " " " " " "	11	E1 A 8200D	07/10/01	07/16/01	1071301	
Bromobenzene	ND	100	tt	**		H	"	,,	
Bromochloromethane	ND	100	**	11	#	11	,,	"	
Bromodichloromethane	ND	100	Ħ	**	11	"	"	" "	
Bromoform	ND	100	tt.	u	H	,	,		
Bromomethane	ND	500	11	**	н	II.		"	
2-Butanone	ND	1000	11	**	Ħ	**		"	
n-Butylbenzene	ND	500	n	"	**		"	"	
sec-Butylbenzene	ND	100	11	n	"	. "	"	"	
tert-Butylbenzene	ND	100	11	n		"	" H		
Carbon disulfide	ND	1000	11		"	"	,	11	
Carbon tetrachloride	ND	1000	,,		 11	"	"		
Chlorobenzene	ND	100	"	#	"	"	"	**	
Chloroethane	ND	100	11	11	"	" "	π #	n	
Chloroform	ND	100	11	11		"		**	
Chloromethane	ND	500	11		"	,,	Ħ	n	
2-Chlorotoluene	ND	100	11	**	" "	,	11	п	
4-Chlorotoluene	ND	100	11	**	"	"	tı	Ħ	
1,2-Dibromo-3-chloropropane	ND	500	11	**	" "	"	"	II	
Dibromochloromethane	ND		"	"			11	11	
1,2-Dibromoethane	ND ND	100	,	"	ti 	**	11	n	
Dibromomethane	ND ND	100	"		"	11	Ħ	n	
1,2-Dichlorobenzene		100	"	11	11	"	н	H	
1,3-Dichlorobenzene	ND ND	100	"	n n	**	**	ls .	"	
1,4-Dichlorobenzene	ND ND	100	" "	"	11	11	Ħ	n	
Dichlorodifluoromethane	ND ND	100	" H	"		"	Ħ	Ħ	
1,1-Dichloroethane	ND ND	500	n	71 FI	"	"	И	n	
1,2-Dichloroethane	ND ND	100	"	"		n	17	11	
1,1-Dichloroethene	ND ND	100			Ħ	"	п	"	
cis-1,2-Dichloroethene		100	11		Ħ	ii.	п	11	
trans-1,2-Dichloroethene	ND	100		Ħ	H	"	n	H	
1,2-Dichloropropane	ND	100	Я	11	**	11	"	11	
1,3-Dichloropropane	ND	100	н	"	Ħ	11	n	**	
2,2-Dichloropropane	ND	100	"	"	11	н	"	11	
1,1-Dichloropropene	ND	100	"	"	n	IT	**	11	
cis-1,3-Dichloropropene	ND	100		"	"	п	**	Ħ	
trans-1,3-Dichloropropene	ND	100	"	"	"	**	Ħ	II	
Ethylbenzene	ND	100	"		11	"	11	n	
	ND	100	11	11	H	II .	"	n	

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Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090

Reported: 07/31/01 12:38

Project Manager: Anne Krarawetter

Volatile Organic Compounds per EPA Method 8260B North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
01AMF9U07SL (P1G0207-07) Other wet					Sampled: 07/0	5/01 Recei	ived: 07/06/	01	P-02
Hexachlorobutadiene	ND	200	ug/kg wet	1	EPA 8260B	07/16/01	07/16/01	1071301	
2-Hexanone	ND	1000	11	n	11	n	11	"	
Isopropylbenzene	ND	200	**	11	*1	"	**	tr	
p-Isopropyltoluene	ND	200	n	н	n	n	11	n	
4-Methyl-2-pentanone	ND	500	#	n	n		11	н	
Methyl tert-butyl ether	ND	100	tt	n	n	n	**	11	
Methylene chloride	ND	500	11	11	n	11	11	ti .	
Naphthalene	ND	200	11	tt	11	*	**	.,	
n-Propylbenzene	ND	100	,,	tr	**	n	**	**	
Styrene	ND	100	Ħ	Ħ		n	Ħ	. 11	
1,1,1,2-Tetrachloroethane	ND	100	11	Ħ	tt	11	11	**	
1,1,2,2-Tetrachloroethane	ND	100	**	11	n	n	n	11	
Tetrachloroethene	ND	100	If	n	n	II	**	**	
Toluene	ND	100	11	**	n	11	Ħ	11	
1,2,3-Trichlorobenzene	ND	100	Ħ	n	#	11	11	**	
1,2,4-Trichlorobenzene	ND	100	**	**	11*	11	,,	"	
1,1,1-Trichloroethane	ND	100	11	Ħ	11		**	91	
1,1,2-Trichloroethane	ND	100	**	n	п	n	"	н	
Trichloroethene	ND	100	"	11	n	"	"	n	
Trichlorofluoromethane	ND	100	11	n	Ħ	ır	н	Ħ	
1,2,3-Trichloropropane	ND	100	11	n	н .	11	,,	n	
1,2,4-Trimethylbenzene	ND	100	11	и .	Ħ	**	н	n	
1,3,5-Trimethylbenzene	ND	100	11	**	Ħ	11			
Vinyl chloride	ND	100	11		Ħ	e e	**	**	
o-Xylene	ND	100	n	11	н	11	11	**	
m,p-Xylene	ND	200	n	"	Ħ	11	**	11	
Surr: 4-BFB	94.5 %	70-130		 -					
Surr: 1,2-DCA-d4	79.0 %	70-130							
Surr: Dibromofluoromethane	84.5 %	70-130							
Surr: Toluene-d8	96.0 %	70-130							

North Creek Analytical - Portland

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Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090

Project Manager: Anne Krarawetter

Reported: 07/31/01 12:38

Polynuclear Aromatic Compounds per EPA 8270M-SIM North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Note
01AMF9U01SL (P1G0207-01) Soil					Sampled: 07/0		ved: 07/06/	······································	
Acenaphthene	ND	13.4	ug/kg dry	1	EPA 8270m	·····			
Acenaphthylene	ND	13.4	ug/kg uiy	1	EPA 82/UM	07/18/01	07/20/01	1071402	
Anthracene	ND	13.4	**	n	"	" "	" H	11	
Benzo (a) anthracene	ND	13.4	"	n	n	" #	n H	"	
Benzo (a) pyrene	ND	13.4	11	,,		"	"		
Benzo (b) fluoranthene	ND	13.4	н	н	11	" n	"	**	
Benzo (ghi) perylene	ND	13.4	71	"		" "	n n	11	
Benzo (k) fluoranthene	ND	13.4	Ħ		" N	"		H .	
Chrysene	ND	13.4	Ħ				**	"	
Dibenzo (a,h) anthracene	ND		,,	"	"	H	11	11	
Fluoranthene	ND ND	13.4 13.4	"	n n	11	#	11	11	
Fluorene	ND ND		" "	n		. "	"	11	
Indeno (1,2,3-cd) pyrene	ND ND	13.4	"		11	11	"	11	
Naphthalene	ND ND	13.4	"	11	"	11	"	li .	
Phenanthrene	ND ND	13.4		Ħ	II	"	"	11	
Pyrene	ND ND	13.4	11	H	н	11	. 11	11	
·		13.4		#	H	"		II .	
Surr: Fluorene-d10	67.5 %	40-150							
Surr: Pyrene-d10	116%	40-150							
Surr: Benzo (a) pyrene-d12	96.6 %	40-150							
01AMF9U02SL (P1G0207-02) Soil				Ş	Sampled: 07/0	5/01 Recei	ved: 07/06/(11	
Acenaphthene	ND	13.4	ug/kg dry	1	EPA 8270m	07/18/01			
Acenaphthylene	ND	13.4	ug/kg uly	,,	EFA 62/0111	07/18/01	0 7 /20/01	1071402	
Anthracene	ND	13.4	н .	**		"		,,	
Benzo (a) anthracene	ND	13.4	"	11	n	n	**	"	
Benzo (a) pyrene	ND	13.4	11	"	н	*	" "	"	
Benzo (b) fluoranthene	ND	13.4	11	11	,,	**		,	
Benzo (ghi) perylene	ND	13.4	N		n		,,		
Benzo (k) fluoranthene	ND	13.4	11	н		n	" "		
Chrysene	ND	13.4	11	Ħ		" "	,,	"	
Dibenzo (a,h) anthracene	ND	13.4	11		"	**	,	,,	
Fluoranthene	ND	13.4			"	" "		11	
Fluorene	ND ND	13.4	,,	**	11	"	"	"	
ndeno (1,2,3-cd) pyrene	ND ND	13.4	"	"	"	"	"	II	
Naphthalene	ND ND	13.4	"	"	"	"	11	"	
Phenanthrene	ND ND	13.4	"	" "	11 11		"	н	
Pyrene	ND ND	13.4	"	"	11	#1	11	"	
Surr: Fluorene-d10	71.2 %	40-150			***	"	"	11	

North Creek Analytical - Portland



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Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 12:38

Polynuclear Aromatic Compounds per EPA 8270M-SIM North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Note
01AMF9U02SL (P1G0207-02) Soil					Sampled: 07/0				11010
Surr: Pyrene-d10	118%	40-150			Sampled: 07/0	J/UI Rece	ived: 07/06/	01	
Surr: Benzo (a) pyrene-d12	98.4 %	40-150							
01AMF9U03SL (P1G0207-03) Soil					Sampled: 07/0	5/01 Dans	: 1 07/06/	0.1	
Acenaphthene	ND	13.4	ug/kg dry				ived: 07/06/		
Acenaphthylene	ND	13.4	ug/kg uly	1	EPA 8270m	07/18/01	07/20/01	1071402	
Anthracene	ND	13.4	и	"	,		17	**	
Benzo (a) anthracene	ND	13.4	11	n	"	" "	11	II	
Benzo (a) pyrene	ND	13.4	71	11		" "	Ħ	п	
Benzo (b) fluoranthene	ND	13.4	n	n	"	n n	11		
Benzo (ghi) perylene	ND	13.4	11		# **	**		11	
Benzo (k) fluoranthene	ND	13.4	n	 It			11	Ħ	
Chrysene	ND	13.4	"		"		tt	#	
Dibenzo (a,h) anthracene	ND	13.4	н		"		п	**	
Fluoranthene	ND	13.4	н	"	n n		11	'n	
Fluorene	ND		 31	" "	n	11	11	n	
ndeno (1,2,3-cd) pyrene	ND	13.4	"	"	н	11	**	"	
Naphthalene	ND ND	13.4	"	11		"	н	n	
Phenanthrene	ND ND	13.4	" "	." #	"	H	n	"	
Pyrene	ND	13.4 13.4	" "	"	"	15	11	11	
Surr: Fluorene-d10	67.9 %		·			"		H .	
Surr: Pyrene-d10	105 %	40-150							
Surr: Benzo (a) pyrene-d12	91.7 %	40-150 40-150							
01AMF9U04SL (P1G0207-04) Soil				S	Sampled: 07/0:	5/01 Dagai	ved: 07/06/0	21	
Acenaphthene	ND	13.4	ug/kg dry	1	EPA 8270m	07/18/01	07/20/01		
Acenaphthylene	ND	13.4	" " " " " " " " " " " " " " " " " " "	H	# #	0//16/01	07/20/01	1071402	
Anthracene	ND	13.4	"	n	11	u'	**		
Benzo (a) anthracene	ND	13.4	H	11	•		n	"	
Benzo (a) pyrene	ND	13.4	<u>,,</u>	Ħ	н	**	 H	" II	
Benzo (b) fluoranthene	ND	13.4		11	Ħ	H	,,	"	
Benzo (ghi) perylene	ND	13.4	**	H	**	**	**		
Benzo (k) fluoranthene	ND	13.4	**	п	n	n	"	"	
Chrysene	ND	13.4		n	**	11	"	"	
Dibenzo (a,h) anthracene	ND	13.4	11	н	n	"	"	"	
luoranthene	ND	13.4		11	11	"	"		
luorene	ND	13.4	11	n		"	"		
ndeno (1,2,3-cd) pyrene	ND	13.4	,,	,,		•	"	n .	

North Creek Analytical - Portland

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Jerry Orlando, Project Manager/QA

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Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 12:38

Polynuclear Aromatic Compounds per EPA 8270M-SIM

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Note
01AMF9U04SL (P1G0207-04) Soil					Sampled: 07/0	5/01 Rece	ived: 07/06/	01	
Naphthalene	ND	13.4	ug/kg dry	1	EPA 8270m	07/18/01			
Phenanthrene	ND	13.4	"	,	11 A 62/011	07/18/01	07/20/01	1071402	
Pyrene	ND	13.4	н	н	H	,	"	*	
Surr: Fluorene-d10	56.9 %	40-150						···	
Surr: Pyrene-d10	90.1 %	40-150							
Surr: Benzo (a) pyrene-d12	77.4 %	40-150							
01AMF9U05SL (P1G0207-05) Soil				;	Sampled: 07/0	5/01 Rece	ived: 07/06/	0 1	
Acenaphthene	ND	13.4	ug/kg dry	1	EPA 8270m				
Acenaphthylene	ND	13.4	"	1	EFA 62/UII	07/18/01	07/20/01	1071402	
Anthracene	ND	13.4	11	II	#		" #		
Benzo (a) anthracene	ND	13.4	11	11	,,	" "	" "	11	
Benzo (a) pyrene	ND	13.4	"	,,	11	Tt	" #	11	
Benzo (b) fluoranthene	ND	13.4	"	u	**	"	" n	"	
Benzo (ghi) perylene	ND	13.4	11	n	11		" "	"	
Benzo (k) fluoranthene	ND	13.4	11	π			"	**	
Chrysene	ND	13.4	H	11	,,	 H	" H	"	
Dibenzo (a,h) anthracene	ND	13.4	"	"	**		"	**	
Fluoranthene	ND	13.4	H	11	**	" #	"	11	
Fluorene	ND	13.4	n	п		"	" "	W	
ndeno (1,2,3-cd) pyrene	ND	13.4	n	11	,,	 11	"		
Naphthalene	ND	13.4	n		er .	"		"	
Phenanthrene	ND	13.4	Ħ	11	**	"	11	11	
Pyrene	ND ND	13.4	н	 #	**	"	11	**	
Surr: Fluorene-d10	65.8 %	40-150							
Surr: Pyrene-d10	115 %	40-150							
Surr: Benzo (a) pyrene-d12	99.0 %	40-150							

North Creek Analytical - Portland

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Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 12:38

Polynuclear Aromatic Compounds per EPA 8270M-SIM

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
01AMF9U06SL (P1G0207-06) Soil					Sampled: 07/0	5/01 Recei	ived: 07/06/0		
Acenaphthene	ND	13.4	ug/kg dry	1	EPA 8270m				
Acenaphthylene	ND	13.4	ug ng diy	11 T	EFA 62/UM	07/18/01	07/20/01	1071402	
Anthracene	ND	13.4	11	11	n	11	11	Ħ	
Benzo (a) anthracene	ND	13.4	11		11	"	"		
Benzo (a) pyrene	ND	13.4	n	n	#	"	"	11	
Benzo (b) fluoranthene	ND	13.4	"	85	11	"	"	"	
Benzo (ghi) perylene	ND	13.4	11	**	**	"	"	"	
Benzo (k) fluoranthene	ND	13.4	11	n	**	,,	" "	"	
Chrysene	ND	13.4	n		,,		" "	"	
Dibenzo (a,h) anthracene	ND	13.4	**	n	11		" #	"	
Fluoranthene	ND	13.4	**	11	11	н		n	
Fluorene	ND	13.4	н	"	n	н	Ħ	" H	
Indeno (1,2,3-cd) pyrene	ND	13.4	"	11	H	**	,	"	
Naphthalene	ND	13.4	n	н	н		11		
Phenanthrene	ND	13.4	11	Ħ	n	11	Ħ	"	
Pyrene	ND	13.4	"	Ħ	**	Ħ	11	#	
Surr: Fluorene-d10	69.7 %	40-150							
Surr: Pyrene-d10	114%	40-150							
Surr: Benzo (a) pyrene-d12	96.6 %	40-150							

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Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090

Project Manager: Anne Krarawetter

Reported: 07/31/01 12:38

Percent Dry Weight (Solids) per Standard Methods North Creek Analytical - Portland

Analyte	Result	Reporting Limit Units	Dilution	Method	Prepared	Analyzed	Batch	Note
01AMF9U01SL (P1G0207-01) Soil				Sampled: 07/05	/01 Rece	ived: 07/06/	01	
% Solids	87.5	1.00 % by Weigh	1]	NCA SOP	07/11/01	07/12/01	1071131	
01AMF9U02SL (P1G0207-02) Soil				Sampled: 07/05/	/01 Rece	ived: 07/06/	01	
% Solids	90.1	1.00 % by Weigh	1	NCA SOP	07/11/01	07/12/01	1071131	
01AMF9U03SL (P1G0207-03) Soil				Sampled: 07/05/	/Ol Rece	ived: 07/06/	01	
% Solids	83.5	1.00 % by Weigh	1	NCA SOP	07/11/01	07/12/01	1071131	
01AMF9U04SL (P1G0207-04) Soil				Sampled: 07/05/	01 Rece	ived: 07/06/	01	
% Solids	89.4	1.00 % by Weigh	1	NCA SOP	07/11/01	07/12/01	1071131	
01AMF9U05SL (P1G0207-05) Soil	· · · · · · · · · · · · · · · · · · ·			Sampled: 07/05/	01 Rece	ived: 07/06/	01	
% Solids	88.5	1.00 % by Weigh	1	NCA SOP	07/11/01	07/12/01	1071131	
01AMF9U06SL (P1G0207-06) Soil		·		Sampled: 07/05/	'01 Rece	ived: 07/06/	01	
% Solids	88.2	1.00 % by Weigh	1	NCA SOP	07/11/01	07/12/01	1071131	· · · · · · · · · · · · · · · · · · ·

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Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 12:38

Gasoline Range Organics (n-Hexane to <n-Decane) and BTEX per AK101 and EPA 8021B - Quality Control

	Nor	th Creek	Analy	tical - Po	ortland					
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1071099 - EPA 5035										
Blank (1071099-BLK1)				Prepare	d & Analy	zed: 07/1	0/01			
Gasoline Range Organics	ND	4.00	mg/kg	Tropuro	d & 7 mary	ZCu. 07/1	0/01			
Benzene	ND	0.100	11							
Toluene	ND	0.100	tt .							
Ethylbenzene	ND	0.100	11							
Xylenes (total)	ND	0.100	"							
Surr: a,a,a-TFT (FID)	3.22	·	n	2.50		129	60-140			
Surr: a,a,a-TFT (PID)	2.43		"	2.50		97.2	60-140			
LCS (1071099-BS1)				Prenare	d & Analy	zed: 07/1	0/01			
Gasoline Range Organics	68.6	4.00	mg/kg	62.5	d & Tulary	110	70-120			
Surr: a,a,a-TFT (FID)	3,41		n	2.50		136	60-140		-	
LCS (1071099-BS2)				Prepare	d & Analy	zed: 07/1	0/01			
Benzene	0.795	0.100	mg/kg	1.00	<u>a w rinary</u>	79.5	70-120			
Toluene	0.777	0.100	"	1.00		77.7	70-120			
Ethylbenzene	0.803	0.100	n	1.00		80.3	70-120			
Xylenes (total)	2.51	0.100	tt	3.00		83.7	70-120			
Surr: a,a,a-TFT (PID)	2.47		"	2.50		98.8	60-140			
LCS Dup (1071099-BSD1)				Prepare	d & Analy	zed: 07/1	0/01			
Gasoline Range Organics	68.6	4.00	mg/kg	62.5		110	70-120	0.00	20	
Surr: a,a,a-TFT (FID)	3.46		"	2.50		138	60-140			
LCS Dup (1071099-BSD2)				Prepare	d & Analy	zed: 07/10	0/01			
Benzene	0.819	0.100	mg/kg	1.00		81.9	70-120	2.97	200	
Toluene	0.799	0.100	"	1.00		79.9	70-120	2.79	200	
Ethylbenzene	0.835	0.100	41	1.00		83.5	70-120	3.91	200	
Xylenes (total)	2.60	0.100	п	3.00		86.7	70-120	3.52	200	
Surr: a,a,a-TFT (PID)	2.51		"	2.50		100	60-140			

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Project: Amchitka

Project Number: 210901, PO# 21090

Project Manager: Anne Krarawetter

Reported:

07/31/01 12:38

Gasoline Range Organics (n-Hexane to <n-Decane) and BTEX per AK101 and EPA 8021B - Quality Control

North Creek Analytical - Portland

Analyte	Reporting		Spike	Source		%REC		RPD	
Res	ult Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch 1071099 - EPA 5035

Surr: a,a,a-TFT (FID)

Duplicate (1071099-DUP1)	Sour	Prepared & A	analyzed: 07/1					
Gasoline Range Organics	ND	4.00 mg/kg dry	N.			8.22	50	
Surr: a,a,a-TFT (FID)	12.0	п	11.1	108	60-140			
Duplicate (1071099-DUP2)	Sour	ce: P1G0205-01	Prepared & A	nalyzed: 07/1	0/01			
Gasoline Range Organics	ND	2.64 mg/kg dry	N				50	

8.48

6.66

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Project: Amchitka

Project Number: 210901, PO# 21090

Project Manager: Anne Krarawetter

Reported: 07/31/01 12:38

Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/103 - Quality Control

	No:	rth Creek	Analyt	ical - P	ortland		- · · ·			
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1071114 - EPA 3550 Fuels					w-			··		110103
Blank (1071114-BLK1)				Prenare	d: 07/11/0	1 Analys	zed: 07/12/0	31		
Diesel Range Organics	ND	25.0	mg/kg	Troparo	<u>u. 07/11/0</u>	1 Allaly2	zeu: 07/12/0	J1		· · · · · · · · · · · · · · · · · · ·
Residual Range Organics	ND	50.0	11							
Surr: 1-Chlorooctadecane	4.21			4.80		87.7	75-125			
Surr: Triacontane	4.55		H	6.25		72.8	73-123 50-150			
LCS (1071114-BS1)				Prepare	d- 07/11/0			. .		
Diesel Range Organics	110	25.0	mg/kg	129	u. 07/11/0	1 Anaiyz 85.3	ed: 07/12/0)]		
Residual Range Organics	80.6	50.0	III EA KE	79.0		85.5 102	60-130 60-130			
Surr: 1-Chlorooctadecane	3.46		"	4.80		72.1	75-125			~ ~ ~
Surr: Triacontane	6.12		"	6.25		97.9	50-150			S-07
LCS Dup (1071114-BSD1)				Prepare	d: 07/11/0	1 Anglyz	ed: 07/13/0	\1		
Diesel Range Organics	119	25.0	mg/kg	129	<u>u. 07/11/0</u>	92.2	60-130	7.86	20	
Residual Range Organics	81.6	50.0	"	79.0		103	60-130	1.23	20	
Surr: 1-Chlorooctadecane	3.65		"	4.80		76.0	75-125			
Surr: Triacontane	6.44		"	6.25		103	50-150			
Duplicate (1071114-DUP1)	So	urce: P1G02	05-01	Prepare	d: 07/11/0	1 Analyz	ed: 07/12/0) 1		
Diesel Range Organics	ND		mg/kg dry	- 1 1 0 p ta 1 0	ND	1 2 Hilliy2	01. 07/12/		50	
Residual Range Organics	ND	50.0	"		ND		ě		50	
Surr: 1-Chlorooctadecane	4.83		"	6.16		78.4	75-125			
Surr: Triacontane	7.58		"	8.03		94.4	50-150			
Duplicate (1071114-DUP2)	So	urce: P1G02	06-07	Prenare	d: 07/11/0	1 Analyz	ed: 07/12/0)1		
Diesel Range Organics	ND		mg/kg dry		ND	1 / 111d1 y Z	01/12/(, <u> </u>	50	
Residual Range Organics	ND	50.0	#		ND				50	
Surr: 1-Chlorooctadecane	4.41		"	5.15		85.6	75-125			

6.71

8.57

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Surr: Triacontane

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128



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Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090

Project Manager: Anne Krarawetter

Reported: 07/31/01 12:38

Total Metals per EPA 6000/7000 Series Methods - Quality Control

North Creek Analytical - Portland

l l											
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	

Batch 1071443 - EPA 3050								*		
Blank (1071443-BLK1)				Prepare	d: 07/10/0	1 Analys	zed: 07/26/0	\1		
Arsenic	ND	0.500	mg/kg	Тюраго	u. 07/19/0	1 Allaly	zed: 07/26/0)1		
Barium	ND	1.00	"",							·
Cadmium	ND	0.500	Ħ							
Chromium	ND	0.500	**							
Lead	ND	0.500	n							
Nickel	ND	1.00	н							
Vanadium	ND	2.50	n							
LCS (1071443-BS1)				Prenare	d· 07/19/0	1 Analys	zed: 07/26/0	\1		
Arsenic	12.0	0.500	mg/kg	10.0	4. 07/19/0	120	80-120	/1		
Barium	10.6	1.00	11	10.0		106	80-120			
Cadmium	10.8	0.500	**	10.0		108	80-120			
Chromium	9.62	0.500	II .	10.0		96.2	80-120			
Lead	9.46	0.500	н	10.0		94.6	80-120			
Nickel	10.9	1.00	11	10.0		109	80-120			
Vanadium	9.26	2.50	n	10.0		92.6	80-120			
Duplicate (1071443-DUP1)	Sour	ce: P1G05	33-01	Prepare	d: 07/19/0	1 Analya	zed: 07/26/0	11		
Arsenic	9.07		mg/kg dry		9.19	1 1 11111111111111111111111111111111111	304. 07/20/0	1.31	40	
Barium	105	1.00	"		111			5.56	40	
Cadmium	ND	0.500	91		ND	•		5.50	40	
Chromium	10.3	0.500	11		11.9			14.4	40	
Lead	7.85	0.500	11		7.99			1.77	40	
Nickel	14.8	1.00	71		15.1			2.01	40	
Vanadium	52.7	2.50	n		55.4			5.00	40	
Matrix Spike (1071443-MS1)	Sour	ce: P1G05	33-01	Prepare	d: 07/19/0	1 Analyz	zed: 07/26/0)1		
Arsenic	23.3	0.500	mg/kg dry	10.9	9.19	129	75-125			Q-02
Barium	122	1.00	H	10.9	111	101 .	75-125			Q-02
Cadmium	11.4	0.500	n	10.9	ND	105	75-125			
Chromium	22.8	0.500	n	10.9	11.9	100	75-125			
Lead	17.9	0.500	11	10.9	7.99	90.9	75-125			
Nickel	27.7	1.00	n	10.9	15.1	116	75-125			
Vanadium	69.1	2.50	н	10.9	55.4	126	75-125			Q-02

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Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported:

07/31/01 12:38

Total Metals per EPA 6000/7000 Series Methods - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	

Batch 1071443 - EPA 3050

Matrix Spike (1071443-MS2) Arsenic	Source: P1G0207-01			Prepared: 07/19/01 Analyzed: 07/26/01				
	6.06	0.500	mg/kg dry	11.2	2.32	33.4	75-125	
Barium	26.6	1.00	11	11.2			· · ·	Q-02
Cadmium	12.2	0.500	ŧŧ	11.2	12.2	129	75-125	Q-02
Chromium	33.2		n		ND	109	75-125	
Lead		0.500	"	11.2	11.7	192	75-125	Q-02
	11.7	0.500	n	11.2	0.902	96.4	75-125	•
Nickel	27.2	1.00	11	11.2	11.9	137	75-125	Q-02
Vanadium	111	2.50	11	11.2	55.6	NR	75-125	Q-14

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Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 12:38

Polychlorinated Biphenyls per EPA Method 8082 - Quality Control

North Creek Analytical - Portland										<u> </u>
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1071381 - EPA 3550				<u> </u>				I d D	Limit	Notes
Blank (1071381-BLK1)				Dromana	1. 07/10/0					
Aroclor 1016	ND	67.0	ug/kg	rrepare	a: 0//18/0	I Analyz	ed: 07/19/	01		
Aroclor 1221	ND	134	ug/kg							
Aroclor 1232	ND	67.0								
Aroclor 1242	ND	67.0	11							
Aroclor 1248	ND	67.0	**							
Aroclor 1254	ND	67.0	11							
Aroclor 1260	ND	67.0	н							
Surr: 2,4,5,6-Tetrachloro-m-xylene	30.7	-	"	33.3		92.2	62.110			
Surr: Decachlorobiphenyl	37.3		"	33.3		92.2 112	63-119 52-131			
LCS (1071381-BS2)				Deamoura	4. 07/10/0					
Aroclor 1016	300	67.0	ug/kg	333	a: 0//18/0		ed: 07/19/0)1		
Aroclor 1260	310	67.0	ug/kg	333		90.1	57-132			
Surr: 2,4,5,6-Tetrachloro-m-xylene	30.1		· · · · · · · · · · · · · · · · · · ·			93.1	60-136			
Surr: Decachlorobiphenyl	34.8		"	33.3 33.3		90.4	63-119			
Datab 1071424 DD4 2550	- 1.15			33.3		105	<i>52-131</i>			
Batch 1071434 - EPA 3550			-							
Blank (1071434-BLK1)	· · · · · · · · · · · · · · · · · · ·			Prepared	d: 07/19/0	l Analyz	ed: 07/20/0)1		
Aroclor 1016	ND	67.0	ug/kg							-
Aroclor 1221	ND	134	11							
Aroclor 1232	ND	67.0	11							
Aroclor 1242	ND	67.0	Ħ							
Aroclor 1248	ND	67.0	11							
Aroclor 1254	ND	67.0	77							
Aroclor 1260	ND	67.0	n							
Surr: 2,4,5,6-Tetrachloro-m-xylene	28.5		"	33.3		85.6	63-119			-
Surr: Decachlorobiphenyl	30.3		"	33.3		91.0	52-131			

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Project: Amchitka

Project Number: 210901, PO# 21090

Project Manager: Anne Krarawetter

Reported: 07/31/01 12:38

Polychlorinated Biphenyls per EPA Method 8082 - Quality Control

North	Creek	Analytic	al - Por	tland

	110	tui Creek	Allaly	icai - P	ortiand					
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC	RPD	RPD Limit	Notes
Batch 1071434 - EPA 3550				***************************************					- Dillit	Notes
LCS (1071434-BS1)				Description	1. 07/10/0					
Aroclor 1016	285	67.0	и		d: 07/19/0		ed: 07/20/0	01		
Aroclor 1260		67.0	ug/kg	333		85.6	57-132		_	
	286	67.0		333		85.9	60-136			
Surr: 2,4,5,6-Tetrachloro-m-xylene	28.8		"	33.3	· · · · · · · · · · · · · · · · · · ·	86.5	63-119			
Surr: Decachlorobiphenyl	32.4		"	33.3		97.3	52-131			
Matrix Spike (1071434-MS1)	Soi	urce: P1G02	90-01	Prepare	đ: 07/19/0	1 Analyz	ed: 07/20/0	11		
Aroclor 1016	336	67.0	ug/kg dry	400	ND	84.0	57-132	71		
Aroclor 1260	342	67.0	n	400	ND	85.5	60-136			
Surr: 2,4,5,6-Tetrachloro-m-xylene	34.3		"	40.0						·-···
Surr: Decachlorobiphenyl	38.2		,,			85.8	63-119			
	50.2	•		40.0		95.5	<i>52-131</i>			
Matrix Spike Dup (1071434-MSD1)	Sou	rce: P1G029	90-01	Prepared	1: 07/19/0	1 Analyza	ed: 07/20/0	\1		
Aroclor 1016	358		ug/kg dry	400	ND	89.5	57-132			
Aroclor 1260	362	67.0	#	400	ND	90.5	60-136	6.34 5.68	50 50	
Surr: 2,4,5,6-Tetrachloro-m-xylene	35.2		"	40.0				2.06	30	
Surr: Decachlorobiphenyl	41.2		"	40.0		88.0 103	63-119 52-131			

North Creek Analytical - Portland



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Bend

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Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090

Project Manager: Anne Krarawetter

Reported:

07/31/01 12:38

Volatile Organic Compounds per EPA Method 8260B - Quality Control

North Creek Analytical - Portland

		OTOUIL	ZIMIUIY	cicai - 1	JI Hanu					
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
D 4 1 1084045									Lillin	Notes

Batch 1071265 - EPA 5	(035	
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Blank (1071265-BLK1)		·		Prepared: 07/14/01 A 1
Acetone	ND	25.0	ug/kg	Prepared: 07/14/01 Analyzed: 07/15/01
Benzene	ND	1.00	" II	
Bromobenzene	ND	1.00	,,	
Bromochloromethane	ND	1.00	**	
Bromodichloromethane	ND	1.00	.,	
Bromoform	ND	1.00	11	
Bromomethane	ND	5.00	Ħ	
2-Butanone	ND	10.0	"	
n-Butylbenzene	ND	5.00	n	
sec-Butylbenzene	ND	1.00	,,	
tert-Butylbenzene	ND	1.00	IT	
Carbon disulfide	ND	10.0	н	
Carbon tetrachloride	ND	1.00	н	
Chlorobenzene	ND	1.00	11	
Chloroethane	ND	1.00		
Chloroform	ND	1.00	H	
Chloromethane	ND	5.00	**	
2-Chlorotoluene	ND	1.00	ır	
4-Chlorotoluene	ND	1.00	и	
1,2-Dibromo-3-chloropropane	ND	5.00	"	
Dibromochloromethane	ND	1.00	H	
1,2-Dibromoethane	ND	1.00	n	
Dibromomethane	ND	1.00		
1,2-Dichlorobenzene	ND	1.00	\$1	
1,3-Dichlorobenzene	ND	1.00	vi	
1,4-Dichlorobenzene	ND	1.00	n	
Dichlorodifluoromethane	ND	5.00	#	
1,1-Dichloroethane	ND	1.00	Ħ	
,2-Dichloroethane	ND	1.00	n	
,1-Dichloroethene	ND	1.00	It	
cis-1,2-Dichloroethene	ND	1.00	,	
rans-1,2-Dichloroethene	ND	1.00	п	
,2-Dichloropropane	ND	1.00	11	
,3-Dichloropropane	ND	1.00	н	
2,2-Dichloropropane	ND	1.00	n	
,1-Dichloropropene	ND	1.00	n	

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Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090

Project Manager: Anne Krarawetter

Reported:

07/31/01 12:38

Volatile Organic Compounds per EPA Method 8260B - Quality Control

North Creek Analytical - Portland

1					<u> , namu</u>						
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	

Blank (1071265-BLK1)				Proposed 07/14/01 A 1 1 07/14/01	
cis-1,3-Dichloropropene	ND	1.00	ug/kg	Prepared: 07/14/01 Analyzed: 07/15/01	
rans-1,3-Dichloropropene	ND	1.00	ug/kg		
Ethylbenzene	ND	1.00	11		
dexachlorobutadiene	ND	2.00	11		
-Hexanone	ND	10.0	н		
sopropylbenzene	ND	2.00	н		
-lsopropyltoluene	ND	2.00	**		
-Methyl-2-pentanone	ND	5.00	If		
Methyl tert-butyl ether	ND	1.00	**		
Methylene chloride	ND	5.00	п		
Japhthalene	ND	2.00	Ħ		
-Propylbenzene	ND	1.00			
tyrene	ND	1.00	0		
,1,1,2-Tetrachloroethane	ND	1.00	n	• •	
,1,2,2-Tetrachloroethane	ND	1.00	Ħ		
etrachloroethene	ND	1.00	11		
oluene	ND	1.00	"		
,2,3-Trichlorobenzene	ND	1.00	11		
,2,4-Trichlorobenzene	ND	1.00	tt		
,1,1-Trichloroethane	ND	1.00	н		
,1,2-Trichloroethane	ND	1.00	91		
richloroethene	ND	1.00	n		
richlorofluoromethane	ND	1.00	н		
,2,3-Trichloropropane	ND	1.00	Ħ		
,2,4-Trimethylbenzene	ND	1.00	Ħ		
,3,5-Trimethylbenzene	ND	1.00	n		
inyl chloride	ND	1.00	n		
-Xylene	ND	1.00	H		
ı,p-Xylene	ND	2.00	11		
urr: 4-BFB	17.9		"	20.0 89.5 70-130	
urr: 1,2-DCA-d4	20.4		"	20.0 102 70-130	
urr: Dibromofluoromethane	20.2		"	20.0 101 70-130	
urr: Toluene-d8	19.5		n	20.0 97.5 70-130	

North Creek Analytical - Portland

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Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090

Project Manager: Anne Krarawetter

Reported: 07/31/01 12:38

Volatile Organic Compounds per EPA Method 8260B - Quality Control

North	Creek	Analy	tical -	Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1071265 - EPA 5035										

Analyte	Result	Limit	Units	Level	Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1071265 - EPA 5035										Hotes
LCS (1071265-BS1)				Prenare	d: 07/14/0)1 Analyz	ed: 07/15/0	<u> </u>		· · · · · · · · · · · · · · · · · · ·
Benzene	21.6	1.00	ug/kg	20.0	4. 07/14/0	108	80-135	71		
Chlorobenzene	22.3	1.00	11	20.0		112	80-135			
1,1-Dichloroethene	20.0	1.00	It	20.0		100	60-150			
Toluene	22.6	1.00	11	20.0		113	80-130			
Trichloroethene	21.2	1.00	ii.	20.0		106	70-135			
Surr: 4-BFB	21.1		"	20.0		106	70-130			
Surr: 1,2-DCA-d4	20.8		"	20.0		100 104	70-130 70-130			
Surr: Dibromofluoromethane	21.2		"	20.0		104	70-130			
Surr: Toluene-d8	20.7		"	20.0		100 104	70-130 70-130			
LCS Dup (1071265-BSD1)				Dranara	d. 07/14/0	\1				
Benzene	17.9	1.00	ug/kg	20.0	u. 0//14/C	89.5	ed: 07/15/0			
Chlorobenzene	18.5	1.00	" " " " E	20.0		92.5	80-135	18.7	25	
,1-Dichloroethene	16.4	1.00	11	20.0		92.3 82.0	80-135	18.6	25	
Γoluene	18.2	1.00		20.0		91.0	60-150	19.8	25	
Trichloroethene	17.0	1.00		20.0		85.0	80-130 70-135	21.6 22.0	25 25	
Surr: 4-BFB	20.9		"	20.0		104	70-130			
Surr: 1,2-DCA-d4	20.3		"	20.0		102	70-130			
Surr: Dibromofluoromethane	21.2		"	20.0		102	70-130 70-130			
Surr: Toluene-d8	20.6		"	20.0		103	70-130 70-130			
Matrix Spike (1071265-MS1)	Sour	ce: P1G02	05_01	Drenare	d+ 07/1 <i>4/</i> 0	1 Anolym	ed: 07/15/0	\1		
Benzene	1880	66.1	ug/kg dry	1700	ND	111	60-135	/1		
Chlorobenzene	1950	66.1	H	1700	ND	115	65-125			
1,1-Dichloroethene	1960	66.1	n	1700	ND	115	60-125			
Γoluene	1950	66.1	Ħ	1700	ND	115	60-135			
Trichloroethene	1850	66.1	11	1700	ND	109	60-125			
Surr: 4-BFB	17.3		'n	17.0		102	70-130			
Surr: 1,2-DCA-d4	16.6		"	17.0		97.6	70-130 70-130			
Surr: Dibromofluoromethane	17.5		"	17.0		103	70-130			
Surr: Toluene-d8	18.0		,,	17.0		106	70-130			

North Creek Analytical - Portland



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Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 12:38

Volatile Organic Compounds per EPA Method 8260B - Quality Control

North	Creek A	<u>Analytical</u>	<u>l - P</u>	ortland	

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
								IG D	Limit	Notes

Batch 1071265 - EPA 5035

Matrix Spike Dup (1071265-MSD1)	Sour	ce: P1G02	205-01	Prepare	d: 07/14/0	1 Analya	zed: 07/15/			
Benzene	1870	66.1	ug/kg dry	1700	ND	110	60-135	0.533	26	
Chlorobenzene	1950	66.1	"	1700	ND	115	65-125	-	25	
1,1-Dichloroethene	1980	66.1	"	1700	ND			0.00	25	
Toluene	1990	66.1	If	1700	ND	116	60-135	1.02	25	
Trichloroethene	1850	66.1	"	1700	ND ND	117	60-125	2.03	25	
Surr: 4-BFB					עא	109	60-125	0.00	25	
Surr: 1,2-DCA-d4	17.4		"	17.0		102	70-130			
	16.2		"	17.0		95.3	70-130			
Surr: Dibromofluoromethane	17.6		"	17.0		104	70-130			
Surr: Toluene-d8	18.0		n	17.0		106	70-130			

Batch 1071301 - EPA 5035

Blank (1071301-BLK1)				D 10 4 1 1 1 2 2 2 2
Acetone	ND	26.0		Prepared & Analyzed: 07/16/01
Benzene	ND	25.0	ug/kg "	
Втотовелие	ND	1.00	11	
Bromochloromethane	ND ND	1.00 1.00	11	
Bromodichloromethane	ND		"	
Bromoform	ND ND	1.00		
Bromomethane	ND	1.00	"	
2-Butanone		5.00	n	
n-Butylbenzene	ND	10.0		
sec-Butylbenzene	ND	5.00	n	
tert-Butylbenzene	ND	1.00	11	
Carbon disulfide	ND	1.00	н	
Carbon tetrachloride	ND	10.0	п	
Chlorobenzene	ND	1.00	It	
Chloroethane	ND	1.00	**	
Chloroform	ND	1.00	n	
Chloromethane	ND	1.00	"	
2-Chlorotoluene	ND	5.00		
	ND	1.00	#1	
4-Chlorotoluene	ND	1.00	Ħ	
1,2-Dibromo-3-chloropropane	ND	5.00	31	
Dibromochloromethane	ND	1.00	n	
1,2-Dibromoethane	ND	1.00	Ħ	
Dibromomethane	ND	1.00	n	

North Creek Analytical - Portland

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Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1

Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported:

07/31/01 12:38

Volatile Organic Compounds per EPA Method 8260B - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	

Batch 1071301 - EPA 5035

Blank (1071301-BLK1)				Prepared & Analyzed: 07/16/01
1,2-Dichlorobenzene	ND	1.00	ug/kg	1 repared & Analyzed: 07/16/01
1,3-Dichlorobenzene	ND	1.00	" II	
1,4-Dichlorobenzene	ND	1.00	н	
Dichlorodifluoromethane	ND	5.00	н	
1,1-Dichloroethane	ND	1.00	**	
1,2-Dichloroethane	ND	1.00		
1,1-Dichloroethene	ND	1.00	IT.	
cis-1,2-Dichloroethene	ND	1.00	11	
trans-1,2-Dichloroethene	ND	1.00	**	
1,2-Dichloropropane	ND	1.00	. It	
1,3-Dichloropropane	ND	1.00	11	
2,2-Dichloropropane	ND	1.00	n	
1,1-Dichloropropene	ND	1.00	11	
cis-1,3-Dichloropropene	ND	1.00	н	
trans-1,3-Dichloropropene	ND	1.00	п	
Ethylbenzene	ND	1.00	n	
Hexachlorobutadiene	ND	2.00	n	
2-Hexanone	ND	10.0	н	
lsopropylbenzene	ND	2.00	11	
p-lsopropyltoluene	ND	2.00	Ħ	
4-Methyl-2-pentanone	ND	5.00	**	
Methyl tert-butyl ether	ND	1.00	ıı	
Methylene chloride	ND	5.00	It	
Naphthalene	ND	2.00	11	
n-Propylbenzene	ND	1.00	#1	
Styrene	ND	1.00	11	
1,1,1,2-Tetrachloroethane	ND	1.00	11	
1,1,2,2-Tetrachloroethane	ND	1.00	11	
Tetrachloroethene	ND	1.00	91	
Toluene	ND	1.00	Ħ	
1,2,3-Trichlorobenzene	ND	1.00	#	
1,2,4-Trichlorobenzene	ND	1.00	**	
1,1,1-Trichloroethane	ND	1.00	n	
1,1,2-Trichloroethane	ND	1.00	11	
Trichloroethene	ND	1.00	R	
Trichlorofluoromethane	ND	1.00	u	

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Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090

Reported: Project Manager: Anne Krarawetter 07/31/01 12:38

Volatile Organic Compounds per EPA Method 8260B - Quality Control

	No	rth Creek	Analy	tical - P	<u>ortland</u>					
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1071301 - EPA 5035						· · · · · · · · · · · · · · · · · · ·				- 1.010.
Blank (1071301-BLK1)		-		Prepare	d & Analy	zed: 07/1	6/01			
1,2,3-Trichloropropane	ND	1.00	ug/kg	Tropuro	d & Allaly	ZCU. 07/10	0/01			
1,2,4-Trimethylbenzene	ND	1.00	" " " "							
1,3,5-Trimethylbenzene	ND	1.00	"							
Vinyl chloride	ND	1.00	**							
o-Xylene	ND	1.00	11							
m,p-Xylene	ND	2.00	n							
Surr: 4-BFB	19.6			20.0		98.0	70-130			
Surr: 1,2-DCA-d4	16.8		"	20.0		84.0	70-130 70-130			
Surr: Dibromofluoromethane	17.2		"	20.0		86.0	70-130			
Surr: Toluene-d8	19.2		"	20.0		96.0	70-130 70-130			
LCS (1071301-BS1)				Prenare	d & Analy					
Benzene	20.4	1.00	ug/kg	20.0	d & Allaly	102	80-135			
Chlorobenzene	19.9	1.00	"	20.0		99.5	80-135			
1,1-Dichloroethene	18.7	1.00	н	20.0		93.5	60-150			
Toluene	21.0	1.00	n	20.0		105	80-130			
Trichloroethene	20.1	1.00	n	20.0		100	70-135			
Surr: 4-BFB	20.5		"	20.0		102	70-130			
Surr: 1,2-DCA-d4	17.4		"	20.0		87.0	70-130			
Surr: Dibromofluoromethane	18.4		"	20.0		92.0	70-130			
Surr: Toluene-d8	18.9		n	20.0		94.5	70-130			
LCS Dup (1071301-BSD1)				Prenare	d & Analy	zed: 07/1	5/01			
Benzene	20.3	1.00	ug/kg	20.0		102	80-135	0.491	25	
Chlorobenzene	19.7	1.00	"	20.0		98.5	80-135	1.01	25	
1,1-Dichloroethene	18.8	1.00	**	20.0		94.0	60-150	0.533	25	
Γoluene	20.7	1.00	Ħ	20.0		104	80-130	1.44	25	
Trichloroethene	19.8	1.00	**	20.0		99.0	70-135	1.50	25	
Surr: 4-BFB	20.5		"	20.0		102	70-130	* *************************************	-	
Surr: 1,2-DCA-d4	17.3		"	20.0		86.5	70-130			
Curry Dibnomathyanamathyan						00.0	. 0 150			

20.0

20.0

18.5

18.9

North Creek Analytical - Portland

Surr: Dibromofluoromethane

Surr: Toluene-d8

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70-130

70-130

92.5

94.5



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Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 12:38

Volatile Organic Compounds per EPA Method 8260B - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting		Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

)71301 - [EPA	5035
)71301 -)71301 - EPA

Matrix Spike (1071301-MS1)	Sour	ce: P1G02	208-01	Prepare	d & Analy	zad. 07/1	6/01			
Benzene	1810	83.7	ug/kg dry	1870	ND					
Chlorobenzene	1760	83.7	ne ke ary			96.8	60-135			
1,1-Dichloroethene	1870	83.7	u	1870	ND	94.1	65-125			
Toluene				1870	ND	100	60-135			
Trichloroethene	1870	83.7	"	1870	. ND	100	60-125			
	1730	83.7	И	1870	ND	92.5	60-125			
Surr: 4-BFB	19.5		"	18.7		104	70-130			
Surr: 1,2-DCA-d4	15.7		"	18.7						
Surr: Dibromofluoromethane	16.9		"	18.7		84.0	70-130			
Surr: Toluene-d8	17.9		n			90.4	70-130			
	17.9			18.7		<i>95.7</i>	70-130			
Matrix Spike Dup (1071301-MSD1)	Sour	ce: P1G02	08-01	Prepared	l & Analy	zed: 07/1	6/01			
Benzene	1890	83.7	ug/kg dry	1870	ND	101	60-135	4.22	25	
Chlorobenzene	1830	83.7	- <i>DB J</i>	1870	ND			4.32	25	
1,1-Dichloroethene	1950	83.7	**			97.9	65-125	3.90	25	
Toluene				1870	ND	104	60-135	4.19	25	
	1960	83.7	н	1870	ND	105	60-125	4.70	25	
Trichloroethene	1820	83.7	н	1870	ND	97.3	60-125	5.07	25	

			1070	יייי	71.3	00-123	
Surr: 4-BFB	19.3	"	18.7		103	70-130	-
Surr: 1,2-DCA-d4	15.5	"	18.7		82.9	70-130	
Surr: Dibromofluoromethane	16.7	"	18.7		89.3	70-130	
Surr: Toluene-d8	17.9	"	18.7		95.7	70-130	

North Creek Analytical - Portland

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Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090

Project Manager: Anne Krarawetter

Reported: 07/31/01 12:38

Polynuclear Aromatic Compounds per EPA 8270M-SIM - Quality Control

North Creek Analytical - Portland

											_
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD	N-4	ĺ
							Dilli	IG D	Limit	Notes	1

Batch	1071402	- EPA	3550
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Blank (1071402-BLK1)				Prepared: 07	/18/01 Analyz	zed: 07/20/01	
Acenaphthene	ND	13.4	ug/kg				
Acenaphthylene	ND	13.4	"				
Anthracene	ND	13.4	11				
Benzo (a) anthracene	ND	13.4	n				
Benzo (a) pyrene	ND	13.4	n				
Benzo (b) fluoranthene	ND	13.4	n				
Benzo (ghi) perylene	ND	13.4	ų				
Benzo (k) fluoranthene	ND	13.4	**				
Chrysene	ND	13.4	*				
Dibenzo (a,h) anthracene	ND	13.4	11				
Fluoranthene	ND	13.4	11				
Fluorene	ND	13.4	**				
Indeno (1,2,3-cd) pyrene	ND	13.4	**				
Naphthalene	ND	13.4	17				
Phenanthrene	ND	13.4					
Pyrene	ND	13.4	n				
Surr: Fluorene-d10	59.1		· · · · · · · · · · · · · · · · · · ·	83.3	70.9	40-150	
Surr: Pyrene-d10	94.3		"	83.3	113	40-150	
Surr: Benzo (a) pyrene-d12	80.9		"	83.3	97. <i>1</i>	40-150	
LCS (1071402-BS1)				Prepared: 07	/18/01 Analyz	ed: 07/20/01	
Acenaphthene	145	13.4	ug/kg	167	86.8	33-139	
Benzo (a) pyrene	162	13.4	n	167	97.0	45-149	
Pyrene	142	13.4	tt	167	85.0	39-138	
Surr: Fluorene-d10	76.8		"	83.3	92.2	40-150	
Surr: Pyrene-d10	96.4		#	83.3	116	40-150	
Surr: Benzo (a) pyrene-d12	87.9		"	83.3	106	40-150	

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Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090

Project Manager: Anne Krarawetter

Reported: 07/31/01 12:38

Polynuclear Aromatic Compounds per EPA 8270M-SIM - Quality Control

Spike

Reporting

Analyte	Result	Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1071402 - EPA 3550										
Matrix Spike (1071402-MS1) Acenaphthene		rce: P1G02	207-01	Prepare	d: 07/18/0	1 Analyzo	ed: 07/20/0)1		
Benzo (a) pyrene	152	13.4	ug/kg dry	190	ND	80.0	33-139			······································
Pyrene	172 157	13.4 13.4	11	190 190	ND ND	90.5	45-149			
Surr: Fluorene-d10	76.2		"	95.2		82.6 80.0	39-138 40-150		<u> </u>	
Surr: Pyrene-d10	104		"	95.2		109	40-150 40-150			
Surr: Benzo (a) pyrene-d12	90.6		"	95.2		95.2	40-150			

Surr. Benzo (a) pyrene-a12	90.6		n	95.2		95.2	40-150			
Matrix Spike Dup (1071402-MSD1)	Source: P1G0207-01			Prepared: 07/18/01		Analyzed: 07/20/01				
Acenaphthene	153	13.4	ug/kg dry	190	ND	80.5	33-139	0.656	60	
Benzo (a) pyrene	175	13.4	11	190	ND	92.1	45-149	1.73	60	
Pyrene	157	13.4	11	190	ND	82.6	39-138	0.00	60	
Surr: Fluorene-d10	82.9		"	95.2				0.00		
Surr: Pyrene-d10	106		"	95.2 95.2		87.1	40-150			
Surr: Benzo (a) pyrene-d12	94.0		,,			111	40-150			
() 13	24.0		**	95.2		<i>98.7</i>	40-150			

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Spokane

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Reported:

07/31/01 12:38

Percent Dry Weight (Solids) per Standard Methods - Quality Control

North Creek Analytical - Portland									
Analyte	Result	Reporting Limit Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1071131 - Dry Weight									110103
Duplicate (1071131-DUP1) % Solids	Sou 86.7	Prepared	d: 07/11/01	Analyze	ed: 07/12/0)1			
Duplicate (1071131-DUP2)		1.00 % by Weight		87.2			0.575	20	
% Solids	Source: P1G0120-02		Prepared	i: 07/11/01	Analyze	d: 07/12/0)1		
	11.3	1.00 % by Weight		74.5			3.95	20	
Duplicate (1071131-DUP3) % Solids	Source: P1G0120-03		Prepared	i: 07/11/01	Analyze	ed: 07/12/0)1		
	73.4	1.00 % by Weight		76.1			3.61	20	
Duplicate (1071131-DUP4)	Sour	Prepared	1: 07/1 1/01	Analyze	d: 07/12/0	11			
% Solids	98.6	1.00 % by Weight	-	98.9		2. 2.71270	0.304	20	
Duplicate (1071131-DUP5)	Sour	ce: P1G0064-04	Prepared	l: 07/11/01	Analyze	:d: 07/12/0) 1		
% Solids	95.1	1.00 % by Weight	·	95.2			0.105	20	

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Project: Amchitka

Project Number: 210901, PO# 21090

Project Manager: Anne Krarawetter

Reported:

07/31/01 12:38

Notes and Definitions

P-0)2	Results reported on 'As Received' basis.
Q-(02	The spike recovery for this QC sample is outside of established control limits due to sample matrix interference.
Q-(06	Analyses are not controlled on RPD values from sample concentrations less than 5 times the reporting limit.
Q-1	14	The Spike Recovery and/or RPD is outside of control limits due to a non-homogeneous sample matrix.
S-0	7	Surrogate recovery is out of control limits. QA criteria are met when one surrogate is within control limits.
DE	T	Analyte DETECTED
ND)	Analyte NOT DETECTED at or above the reporting limit
NR		Not Reported
dry		Sample results reported on a dry weight basis. MRLs are adjusted if %Solids are less than 50%.
wet	t	Sample results reported on a wet weight basis (as received)
RP	D	Relative Percent Difference